Dell PowerEdge XE9785L

Technical Guide

Regulatory Model: E123S Series
Regulatory Type: E123S001
November 2025
Rev. A00

Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

Contents

1

PowerEdge IR7044 and IR7050 configurations and features

The IR7044 and IR7050 are compatible with multiple generations of compute tray enclosures (servers), ensuring that IT investments designed for use with Open Rack Ver.3 (ORv3) base rack can be reused multiple times.

Rack-Scale Platforms and Infrastructure

- Rack: Open Rack Ver.3 Base specification 44 OU and 50 OU which supports PowerEdge M7725, XE9780L, XE9785L, XE8712.

  NOTE: Note: 1 OU = 48 mm (1.88 inch) height, and 538.98 mm (21.22 inch) width.

- Direct liquid cooling (DLC) Manifolds: Dell Designed 21-inch UQDB06 based blind-mate DLC manifolds
- Busbar: ORv3 1400A
- Power Shelf: ORv3 33 kW
- In-Row and In-Rack CDUs
- Management Switch, for example: Dell S5248 10/25GbE
- Fabric Switch: Dell Ethernet and NVIDIA InfiniBand

Figure 1. IR7044 and IR7050

Topics:

- Power Busbar overview
- Direct Liquid Cooling (DLC) Manifold Overview
- Cooling Distribution Unit (CDU)
- Blind mating for power busbar and Direct Liquid Cooling Universal Quick Disconnect (DLC UQD)

Front, rear, and side view of the IR7044 and IR7050

NOTE: The IR7050 front, rear, and side views are similar to IR7044. The only change in the height of IR7050 is 50 OU.

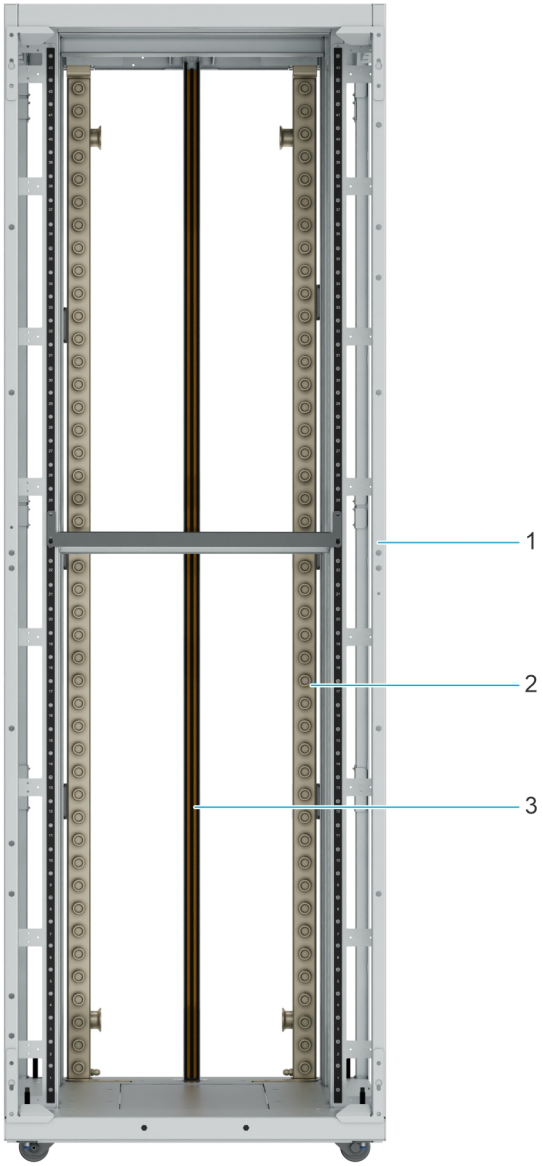

Figure 2. IR7044 Front view

1. Rack frame
2. Blind-mate DLC Manifold
3. Power Busbar

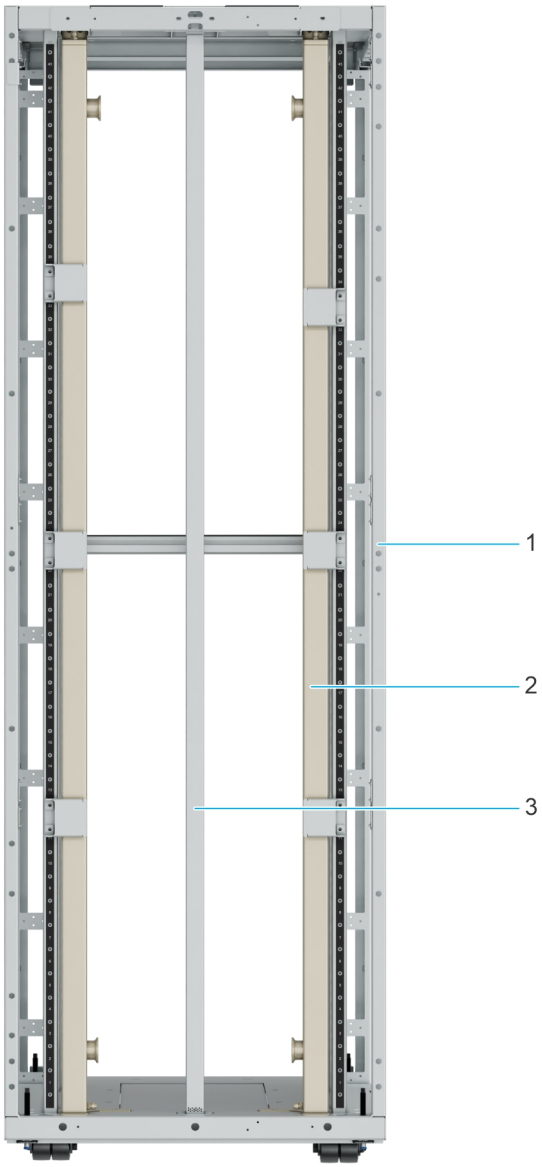

Figure 3. IR7000 rear view

1. Rack frame
2. Blind-mate DLC Manifold
3. Power Busbar

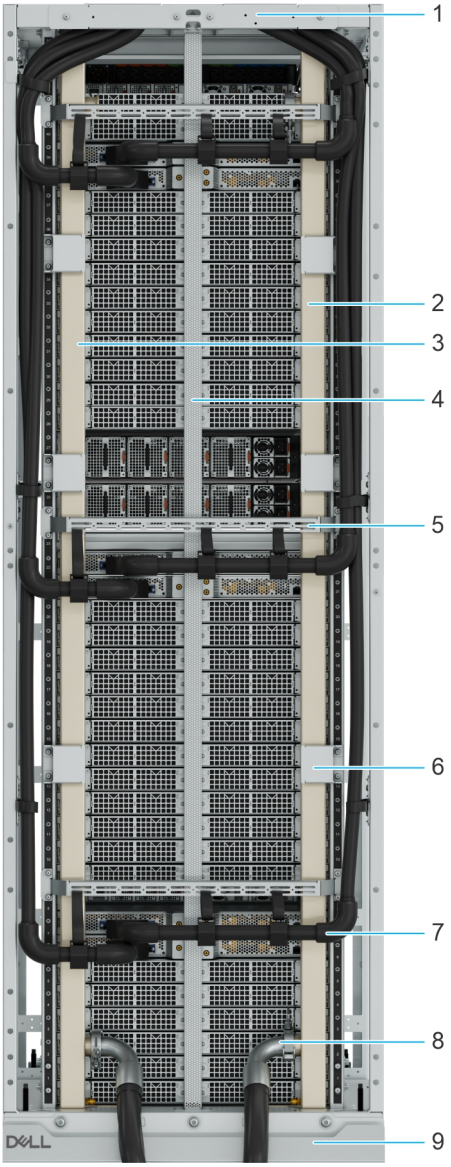

Figure 4. IR7044 rear view with full configuration

1. Rear cable tray bracket
2. Blind-mate DLC Manifold
3. Blind-mate DLC Manifold
4. Power Busbar
5. Strain Relief Bar
6. DLC Manifold bracket
7. Powerwhip
8. DLC Manifold hose
9. Rack Stabilzer

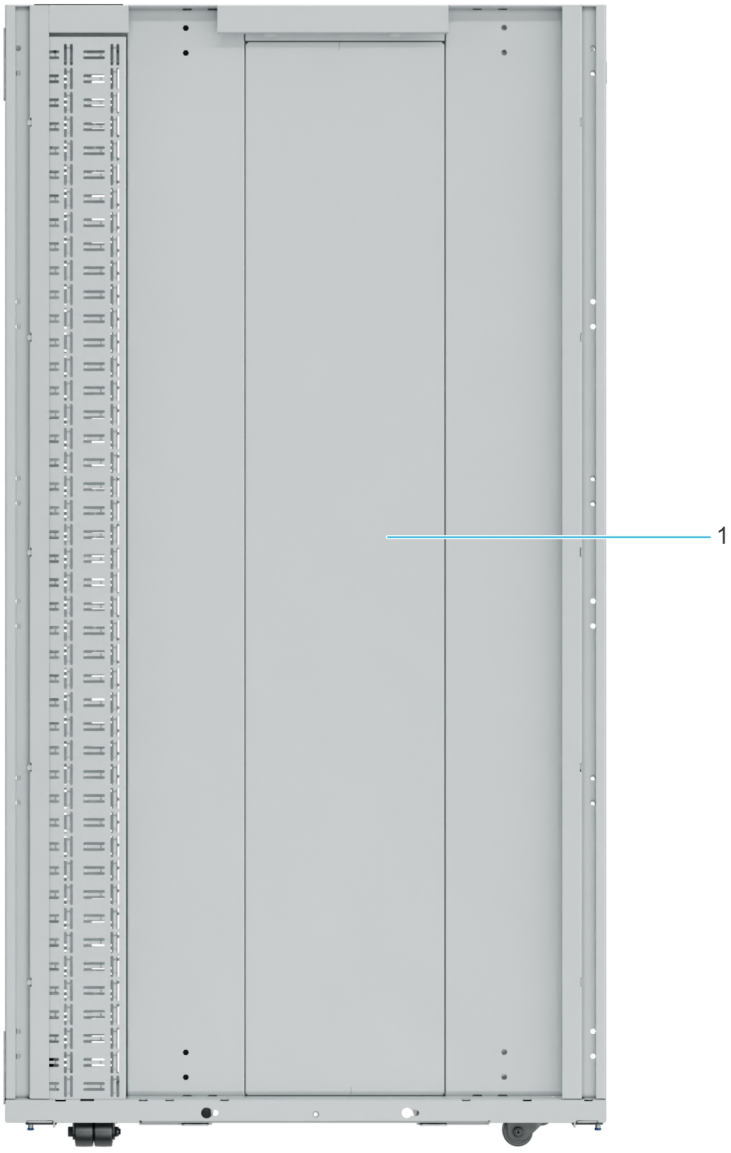

Figure 5. IR7000 side view

1. Side panel

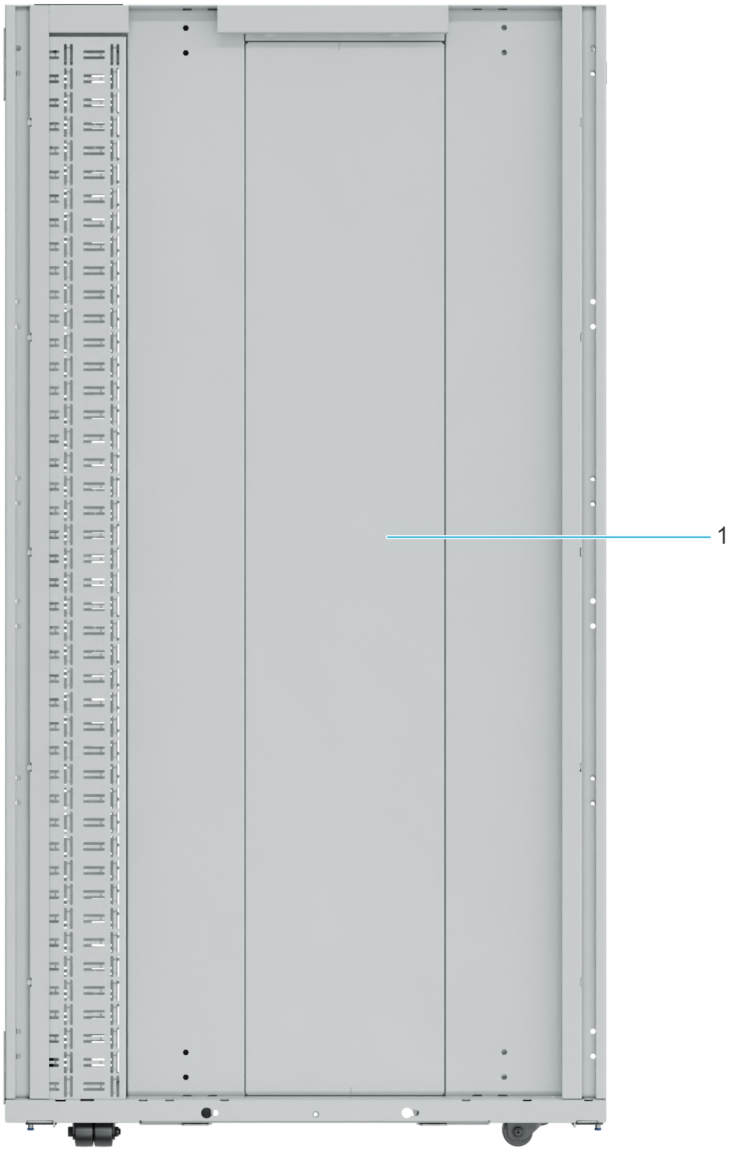

Figure 6. IR7000 side view

1. Side panel

IR7044 - Rack elevation

The PowerEdge IR7044 supports the below rack elevation configurations:

- Maximum configuration
- Typical Configuration

NOTE: These configurations are for reference only.

Max Configuration : 44 OU 1200 x 7500 mm

This supports up to 30 Compute Trays and six power shelves.

- Compute enclosures: 30 OU
- Power shelves: 6 OU
- High-speed fabric switches: Up to 4 OU

- Management switches: Up to 2 x 1 OU
- In-rack PDU (rPDU): 1 OU
- ORv3 cross brace: 1 OU

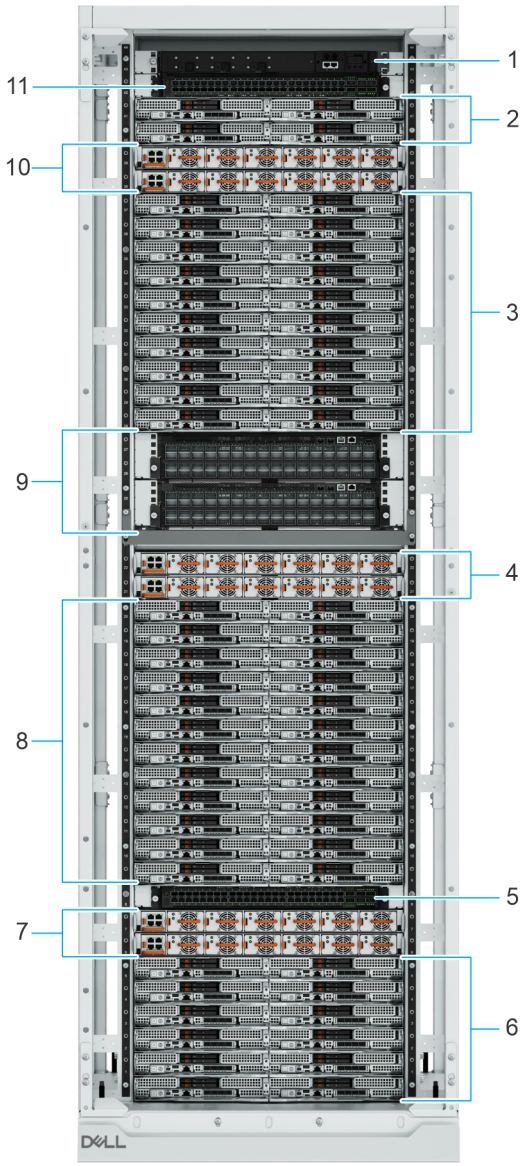

Figure 7. Maximum Configuration

1. In-Rack rPDU
2. Compute Trays 30, and 29
3. Compute Trays: 28, 27, 26, 25, 24, 23, 22, 21, 20, 19
4. Power Shelf 4 and 3
5. Management Switch 1
6. Compute Trays: 6, 5, 4, 3, 2, 1
7. Power Shelf 2 and 1
8. Compute Trays: 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7
9. High-Speed Fabric Switch 2 and 1
10. Power Shelf 6 and 5
11. Management Switch 2

Typical Configuration : 44 OU 1200 x 7500 mm

This supports up to 32 Compute Trays and four power shelves.

- Compute enclosures: 32 OU
- Power shelves: 4 OU
- High-speed fabric switches: Up to 4 OU

- Management switches: 2 OU
- In-rack PDU (rPDU): 1 OU
- ORv3 cross brace: 1 OU

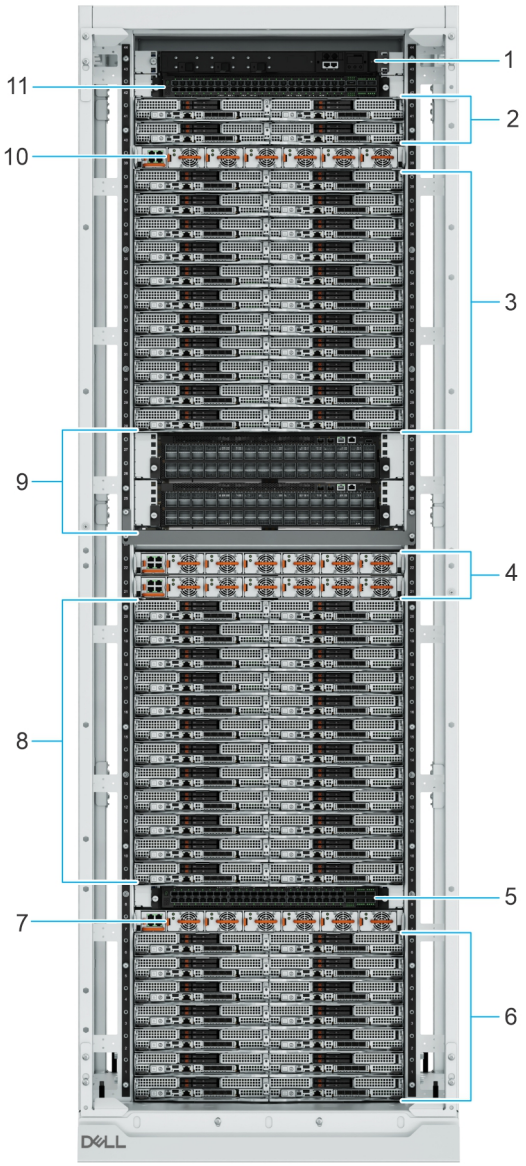

Figure 8. Typical Configuration

1. In-Rack rPDU
2. Compute Trays 32, and 31
3. Compute Trays: 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20
4. Power Shelf 3 and 2
5. Management Switch 1
6. Compute Trays: 7, 6, 5, 4, 3, 2, 1
7. Power Shelf 1
8. Compute Trays: 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8
9. High-Speed Fabric Switch 2 and 1
10. Power Shelf 4
11. Management Switch 2

IR7050 - Rack elevation

The PowerEdge IR7050 supports the below rack elevation configurations:

NOTE: These configurations are for reference only.

Max Configuration : 50 OU 1200 x 7500 mm

This supports up to 36 Compute Trays and six power shelves.

- Compute enclosures: 36 OU
- Power shelves: 6 OU
- High-speed fabric switches: Up to 2 x 2 OU
- Management switches: Up to 2 x 1 OU
- In-rack PDU (rPDU): 1 OU
- ORv3 cross brace: 1 OU

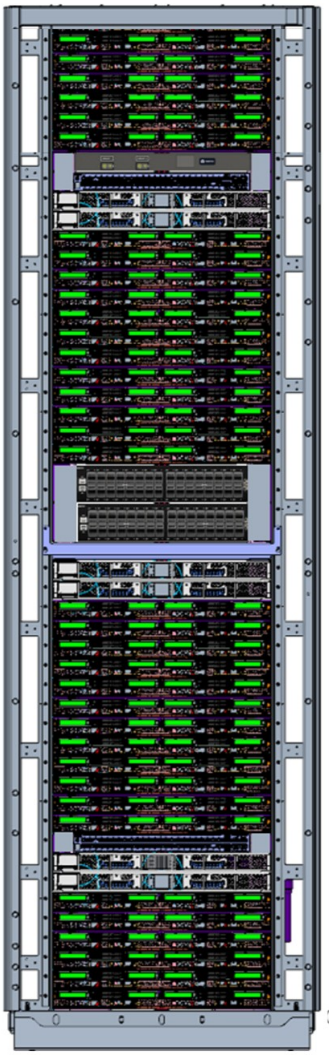

Figure 9. Maximum Configuration

Rack frame dimensions and Weight

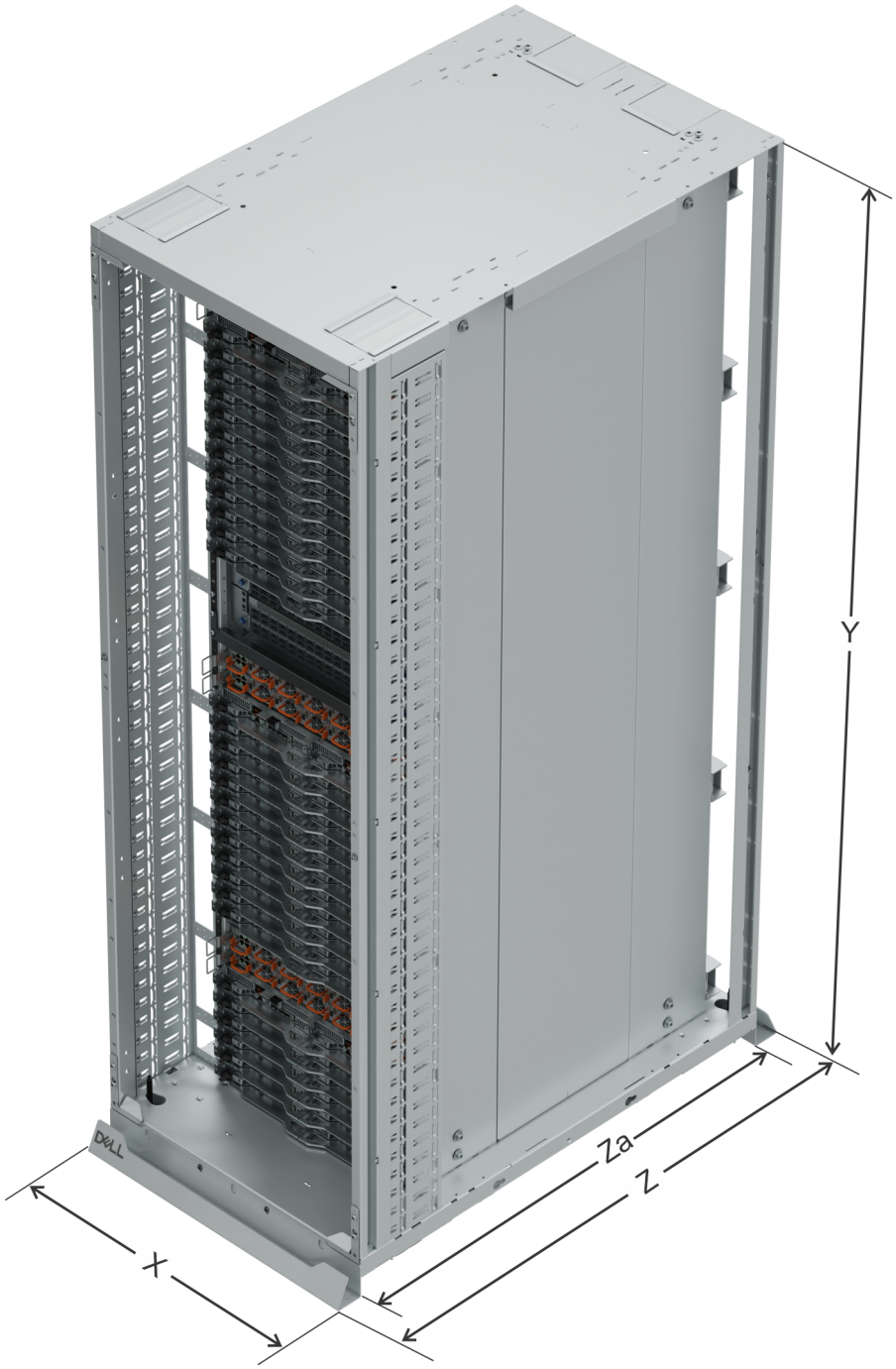

Figure 10. Rack frame dimensions

Table 1. PowerEdge IR7044 and IR7050 Rack dimensions and weights

Type	Rack OU	Height (Y)	Width (X)	Frame depth (Za)	Depth (Z) (with Front & Rear Doors)	Weight
Type 1	44	2290 mm (90.15 inch) (Maximum)	750 mm (29.52 inch)	1200 mm (47.24 inch) (Maximum)	1345 mm (52.95 inch) (Maximum)	Rack including all components = 1600 kgs (3530 lbs) Bus bar = 30.42 kgs (67.09 lbs) Manifold = 54.99 kgs (121.25 lbs) Rack= 276.99 kgs (610.68 lbs) Total=799.02 lbs (363 kg) Doors are not included
Type 2	50	2578 mm (101.49 inch) (Maximum)	750 mm (29.52 inch)	1200 mm (47.24 inch) (Maximum)	1345 mm (52.95 inch) (Maximum)	Rack including all components = 1900 kgs (34189 lbs) Bus bar = 32.20 kgs (71 lbs) Manifold = 64.41 kgs (142 lbs) Rack frame + bus bar + manifold = 389.99 kgs (859.8 lbs) Total=468.29 kg (1032.42 lbs) Doors are not included
Shock Pallet	44 and 50	178 mm (7 inch)	1150 mm (45.27 inch)	1460 mm (57.48 inch)	NA	70 kgs (154.32 lbs)

Power Busbar overview

The power Busbar distributes DC power from Powershelf to IT Gears mounted in the rack through convenient blind-mate power connections.

- Busbar rating : 1400 A
- Busbar operating voltage : 48 V defined by OCP ORv3

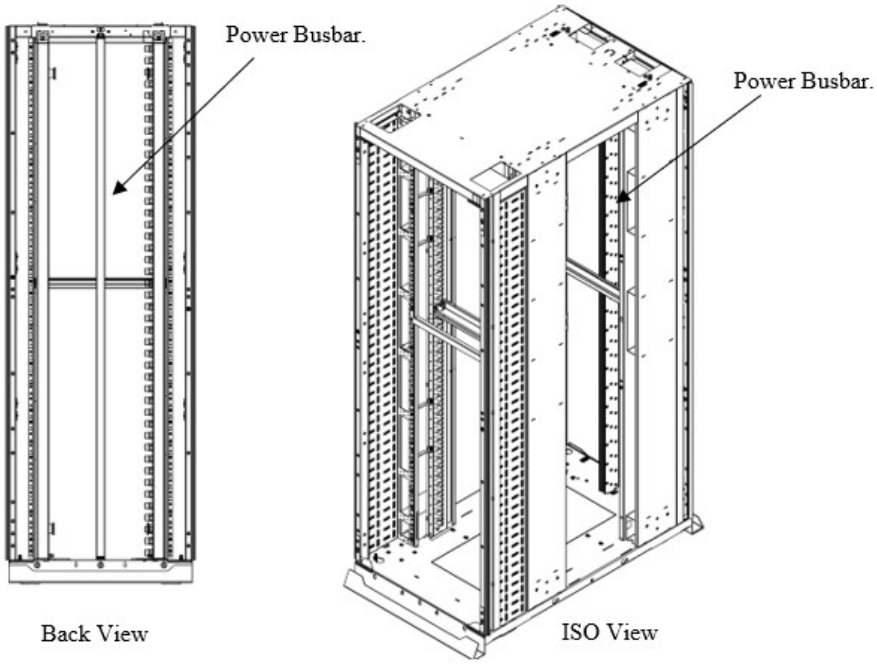

Figure 11. Power Busbar location

Direct Liquid Cooling (DLC) Manifold Overview

DLC Manifold features are:

- 21-inch DLC Manifolds
- Blind-mate Liquid Quick Disconnectors
- Liquid connects at every OU (2 QDs/ OU)
- Utilizes ORv3 spec Manifold mounting interfaces
- Heat capture: Up to 10 kW DLC thermal heat capture per OU

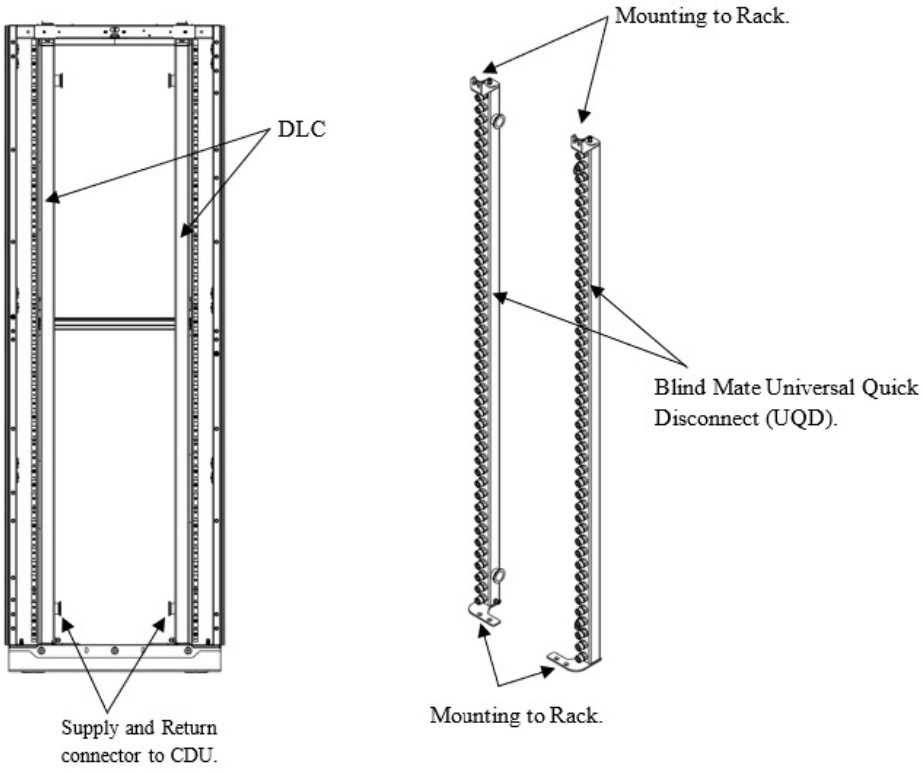

Figure 12. DLC Manifold

Figure 13. DLC mounted on Rack

Figure 14. Direct Liquid Cooling Quick Disconnect (DLC QD) (Left)

Figure 15. Direct Liquid Cooling Quick Disconnect (DLC QD) (Right)

Cooling Distribution Unit (CDU)

NOTE: For more information about the list of supported CDUs, contact your Sales team.

Blind mating for power busbar and Direct Liquid Cooling Universal Quick Disconnect (DLC UQD)

Steps for blind mating the compute enclosure with power busbar and DLC are as follows:

NOTE: Remove the Universal Quick Disconnect (UQD) caps from the system and the Direct Liquid Cooling (DLC) connector in the rack.

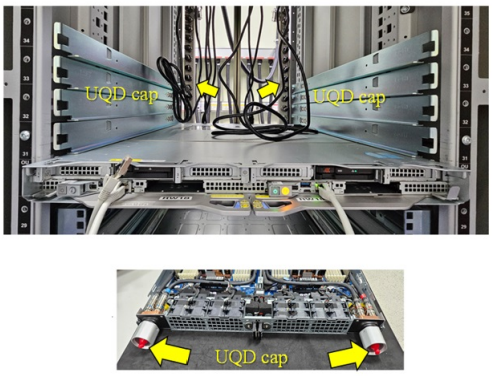

Figure 16. Removing the UQD caps

1. Holding both the levers push the enclosure into the rack.
2. Rotate the levers and push the system until the UQD connectors and power bus bar connector located on the system is engaged with UQD connectors and power bus bar connector rack the rack.
3. Push the compute enclosure holding the handle to engage with DLC manifold and power busbar.

NOTE: It is advised to have two persons to lift the system and placing into the rack due to the system being heavy.

Figure 17. Server installation in the rack

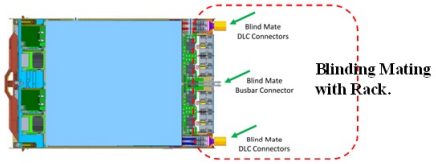

Figure 18. Blind mating for power Busbar and DLC UQD

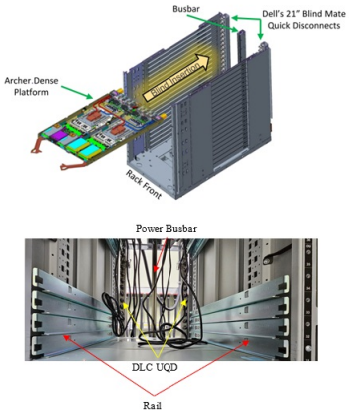

Figure 19. Blind insertion of he compute enclosure

2

Powershelf overview

The M7725 does not support the Power supply units in its enclosure. The power is provided by the six 5500 W power supply units that are installed in the power shelf which provides 51 V DC output to the power busbar which is used by the compute nodes and other components that are installed in the rack.

NOTE: For more information about the Power Management Controller User's Guide, Application Note, and FAQs, contact the Sales team.

Power shelf feature and specifications

- High Efficiency 5.5kW PSU; 97.2% peak / 95.0% @ full load
- Flexible AC input options (Single or Three Phase) with dual input connector
- Hot-pluggable Power Management Controller for monitoring and control
- DC output selects power clip for quick connection to rack power busbar

Table 2. Power shelf input

Configuration	Min	Rated	Max
Star connection (WYE, 3 Ohms 5 W	311 V	346V/480V	528V
Delta connection (Delta, 3 Ohms, 4 W	180V	200V - 277V	305 V
Single phase 1 Ohm	180 V	200V - 277V	305 V
Frequency (Hz)	47	50/60	63
Efficiency	97.2% peak/ 95.0% at full load		
Hold up time	20 ms at 100% load		

Table 3. Power shelf output

Output	
Output power	33 kW
Output voltage (no load/ full load)	49 V / 50 V
Output current	674 A

Figure 20. Power shelf front view

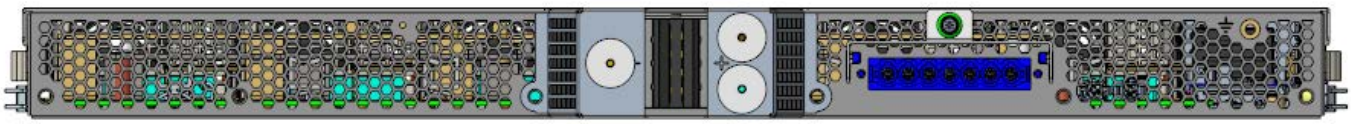

Figure 21. Power shelf rear view

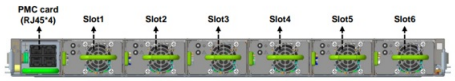

Figure 22. PSU slots

Main input connection

The power shelf has 7 pin 60 A AC input connector

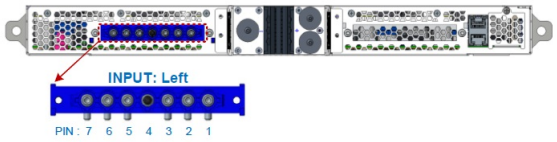

Figure 23. Power shelf input connector

Input fusing

The shelf does not provide any input fusing. Upstream Circuit Breaker with 60A (need to check) per phase recommended. The inserted power supplies are furnished with non-user replaceable 40A fuse(s) in series to line and neutral of power supply input.

Main output connector

The power shelf has a clip connector to mate with the 50 V bus bars which are mounted in rack. Clip has 3 mm floating ability, which can make up for unaligned amount on bus bars.

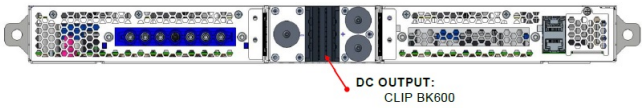

Figure 24. Power shelf output connector

Output grounding

The main output is isolated from the chassis ground.

Hot plug

The Controller is designed to be hot unplugged as well as hot plugged during Shelf operation. The Shelf will not stop operating. In case of a catastrophic fault the Hot plug controller has an internal OCP protection.

Topics:

- Power Management Controller (PMC) module
- Power Shelf dimensions
- Power Shelf weight specifications
- Power shelf environmental specifications
- Power supply unit specifications

Power Management Controller (PMC) module

The PMC is a hot-pluggable controller in the shelf that monitors and facilitates the power supply units through a 10/100/1000MB base Ethernet port and can be connected directly to the rack switch. Redfish protocol is required for the Monitoring and control functions. The supplier is responsible for choosing the communication protocol between PMC to power supply units. The PMC (Power Management Controller) provides Ethernet access to the Power Shelf to communicate with the inserted power supplies. The internal communication between PMC and PSUs is I2C with PMBus protocol. ThePMC consists of the following block: The PMC module specifications are listed below:

- Shelf controller for system communication with up to 6 PSUs/1U in the Shelf
- PoE (Power over Ethernet) functions using front RJ45 port.
- Open BMC and Redfish implementation
- Ethernet communication up to 1GB speed
- 512 MB DDR4 RAM
- Dual 64MB Boot Flash
- Internal Debug port
- Temperature sensor
- 1 OU power shelf with 50 V DC bus voltage or 12V standby output

NOTE: The PMC can be Monitored, update the firmware, and Power management through Dell OpenManage Enterprise (OME) software. For more information, see Dell OpenManage Enterprise 4.5 User's Guide or later versions at OpenManage Enterprise User Guide.

NOTE: List of supported Power Shelves devices:

- Delta 21-inch power shelves 33kW 60A
- Lite-On 21-inch power shelves 33kW 60A

Figure 25. Power management controller (PMC)

Reset button and LED

Reset button and LEDs are on the front panel of PMC module. With the reset buttons, it is possible to reset the PMC controller. The LEDs next to the reset button shows the actual status of the PMC.

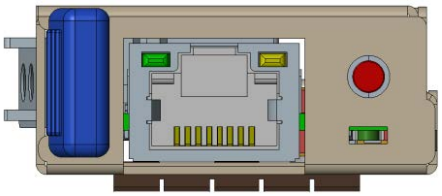

Figure 26. PMC module

LED status

Table 4. LED status

LED	Status
Green	Solid green: Power OK (Voltage is range specification) BMC boot complete
	Blinking green: BMC firmware update in progress
Yellow	Solid yellow: Over temperature warning

Reset button and LEDs are on the front panel of PMC module. With the reset buttons, it is possible to reset the PMC controller. The LEDs next to the reset button shows the actual status of the PMC.

Power Shelf dimensions

Power Shelf dimensions 19 inch

Table 5. Power Shelf dimensions 19 inch

Height	Width	Depth	
43.6 mm (1.71 inch)	495 mm (19.48 inch)	726.5 mm (28.6 inch) Shelf latch to shelf rear	839.5 mm (33.05) Shelf latch to busbar connector

Power Shelf weight specifications

Table 6. Power Shelf weight

Power Shelf	Weight
6 x 5500 W PSUs	38 kg (83.77 lb)

Power shelf environmental specifications

Temperature

- Operational or cold aisle (inlet) temperature: -5°C to +45°C
- Non-operational: -40°C to +85°C

Altitude

- Operational: 0-3050m (10,000ft) above sea-level
- Non-operational : 0-12000m

Thermal margin

Component thermal margin of ≥7% or ≥5°C under worst-case condition (100% load, input voltage lowest, output voltage lowest) and up to 30°C inlet/ambient and 3050m (10,000ft) above sea-level. Target whichever margin value is larger.

Component thermal margin of ≥4% or ≥3°C under worst-case condition (100% load, input voltage lowest, output voltage lowest), at greater than 30°C inlet/ambient and up to 3050m (10,000ft) above sea-level. Target whichever margin value is larger.

Power supply unit specifications

The PSU specifications are as follows:

Table 7. Power supply unit specifications

Key feature	Rating
Input voltage range	200-277 V, 50-60 Hz
Output power	5500 W
Output Voltage (No load/Full load)	50 V/49 V
Output Current	112 A
Efficiency	> 97.5% peak
Operating Temperature	-5°C~45°C
Communication	I2C
Safety Standards	CB/TUV/UL /cUL
EMC	Class A
PSU Dimension	640 mm (L) x 73.4 mm (W) x 40 mm (H)mm

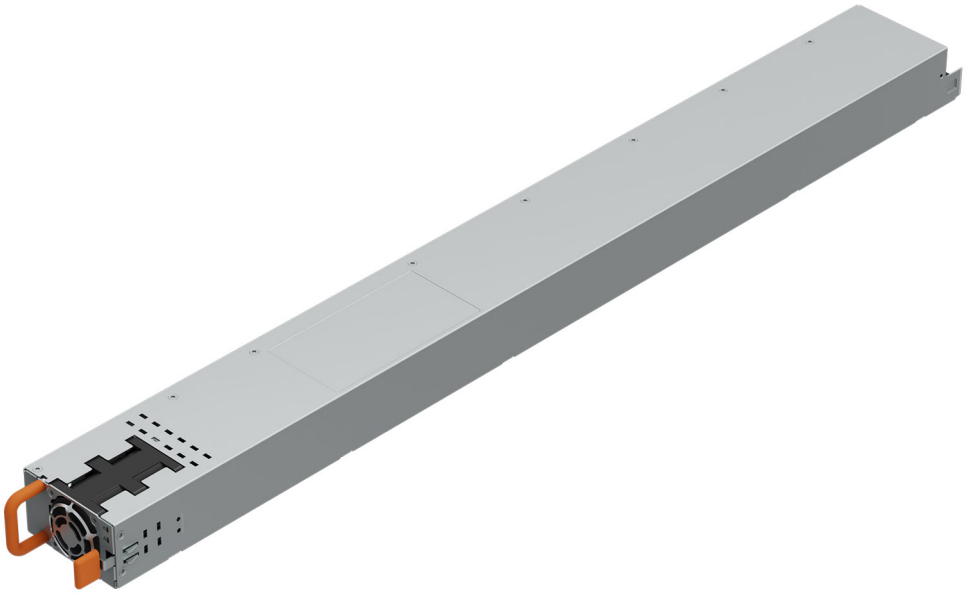

Figure 27. Power supply unit

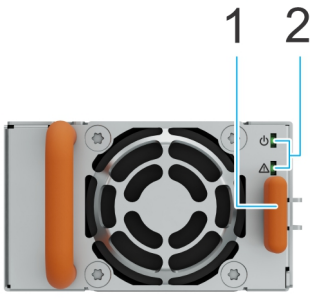

Figure 28. Front view of the PSU

1. PSU handle

2. PSU status LEDs

3

Power whips

A Power Whip is a high-voltage electrical cable assembly used to distribute power from a Power Distribution Unit (PDU) to IT equipment within a data center rack. It plays a crucial role in ensuring efficient and safe power delivery to servers, switches, and other critical components.

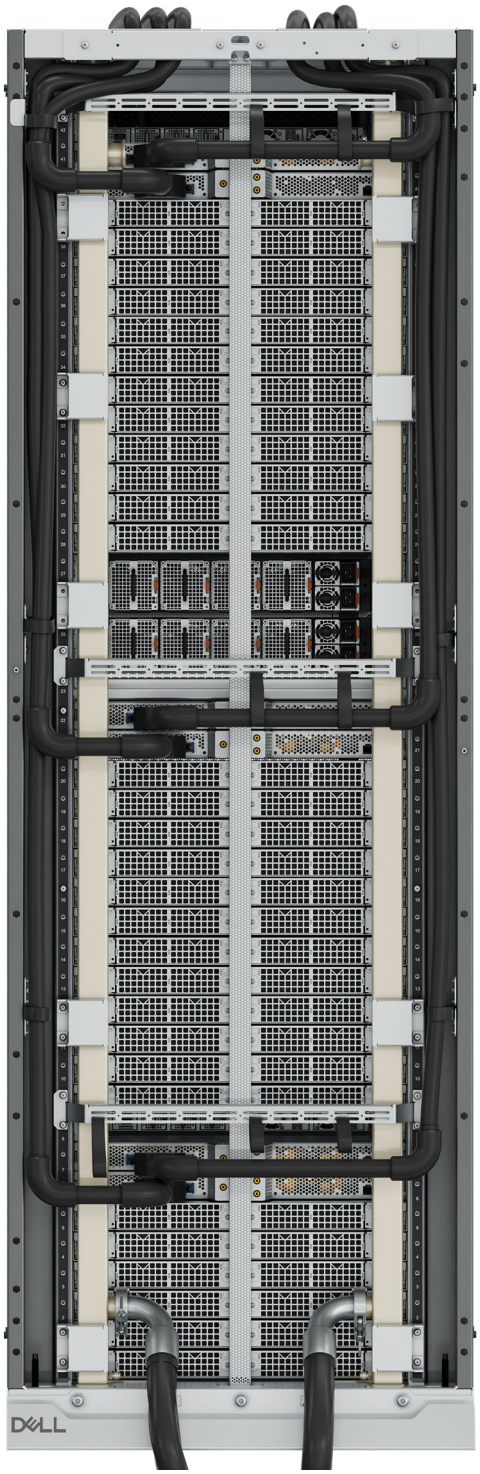

Figure 29. Rear view of IR7000 rack with power whips

Topics:

Key components of power whip

- **Conduit :** Protects the internal wiring from damage and interference.
- **Conductors (Wires) :**Typically made of copper or aluminum to carry electrical current.
- **Connectors :** Custom-fitted to PDUs and power outlets to ensure secure connections.
- **Jacket :** Insulated covering for safety and durability.

Types of power whips

- **Flexible Metal Conduit (FMC) :** Provides flexibility in cable routing.
- **Liquid-Tight Flexible Metal Conduit (LFMC) :** Offers moisture resistance for damp environments.
- **Rigid Metal Conduit (RMC) :** Used for high-security installations requiring extra protection.

Power whip specifications

- **Voltage Ratings :** Commonly available in 120V, 208V, 240V, or higher for data centers.
- **Ampere Ratings :** Typically ranges from 15A to 60A, depending on power requirements.
- **Phase Configuration :** Can be single-phase or three-phase for higher power efficiency.
- **Length :** Varies based on rack layout and distance from the PDU.

Benefits of power whips in IT racks

- **Reliable Power Distribution :** Ensures consistent power delivery to critical IT equipment.
- **Reduced Cable Clutter :** Helps maintain an organized rack setup.
- **Customization :** Available in different configurations to match PDU and equipment needs.
- **Safety Compliance :** Designed to meet electrical codes and standards for safe operation.

Installation & best practices

- Ensure power whips are rated for the rack's voltage and amperage requirements.
- Properly secure conduits to avoid strain on connections.
- Maintain adequate airflow around cables to prevent overheating.
- **NOTE:** Regularly inspect for wear and replace damaged power whips to prevent failures.

4

Management switch overview

The IR7000 is equipped with management switch for networking within the rack with DELL S5248-ON management switch

Table 8. Management switch dimensions

Height	Width	Depth
43.6 mm (1.71 inch)	434 mm (17.08 inch)	460 mm (18.11 inch)

Figure 30. Management switch

NOTE: Installing the switch in the IR7000 rack requires a 19-inch to 21-inch rail conversion kit.

5

Fabric switch overview

The IR7000 supports the following fabric switches:

- Dell Z9664F-ON 64 x 400 Gb
- Dell Z9864F-ON 64 x 800 Gb
- NVIDIA Quantum2 QM9700- NS2R

Table 9. DELL Z9664F-ON 64 x 400 Gb switch dimensions

Height	Width	Depth
87.5 mm (3.44 inch)	438.5 mm (17.26 inch)	630 mm (24.80 inch)

Figure 31. Dell Z9664F-ON 64 x 400 Gb fabric switch

Table 10. Dell Z9864F-ON 64 x 800 Gb switch dimensions

Height	Width	Depth
87.3 mm (3.43 inch)	438.5 mm (17.26 inch)	630 mm (24.80 inch)

Figure 32. Dell Z9864F-ON 64 x 800 Gb fabric switch

Table 11. NVIDIA Quantum2 QM9700- NS2R switch dimensions

Height	Width	Depth
43.6 mm (1.71 inch)	438 mm (17.24 inch)	660 mm (25.98 inch)

Figure 33. NVIDIA Quantum2 QM9700- NS2R fabric switch

NOTE: Installing all the switches in the IR7000 rack requires a 19-inch to 21-inch conversion kit.

6

Rack Power Distribution Unit (rPDU)

The IR7000 is supports Vertiv VP4UU1A0 power distribution unit to provide power to the components installed in the rack.

Table 12. rPDU dimensions

Height	Width	Depth
44 mm (1.73 inch)	432 mm (17 inch)	229 mm (9.01 inch)

Figure 34. rPDU front view

Figure 35. rPDU rear view

The rPDU has a universal inlet and plug form (3P+N+E) (IP44).

7

PowerEdge XE9785L system configurations and features

The PowerEdge XE9785L system is a 3 OU compute node that is installed in the IR7044 and IR7050 that supports:

NOTE: 1 OU = 48 mm (1.88 inch) height, and 538.98 mm (21.22 inch) width.

- Two 5th Generation AMD EPYC 9005 Series processor with up to 192 cores per processor.
- 24 DIMM slots.
- Up to 16 x E1.S NVMe direct drives or 8 x U.2 NVMe SSD drives.

  NOTE: The system supports two U.2 CEM on the PCIe expansion slot.

- For supported power supply requirements, see PowerEdge manuals > Browse All Products > Infrastructure > Integrated Rack > Integrated Rack 7000 series > Dell Integrated Rack 7044 > Select product > Manuals and Documents > Dell PowerEdge IR7000 Installation and Service Manual.
- 4 x Standard Fans for UBB and 8 x Standard Fans for HPM.
- Up to 12 x16 Gen5 (x16 PCIe) full-height, half-length slots to support the latest Gen5 PCIe devices and networking, enabling flexible networking design.
- 8 x AMD Instinct™ MI355X 288GB 1400W OAM with AMD Infinity Fabric connectivity.
- 8 x NVIDIA HGX B300 NVL8 270 GB 1100W SXM6 GPUs, fully interconnected with NVIDIA NVLink technology*

NOTE: For more information about how to hot swap NVMe PCIe SSD device, see the *Dell Express Flash NVMe PCIe SSD User's Guide* at Dell Support page **> Browse all products** > **Infrastructure** > **Data Center Infrastructure** > **Storage Adapters & Controllers** > **Dell PowerEdge Express Flash NVMe PCIe SSD** > **Select This Product** > **Documentation** > **Manuals and Documents**.

NOTE: The speed of U.2 and E1.S drives is also dependent on the storage controller capability and not just the drive speed.

NOTE: *Expected to be available in future releases. Planned offerings are subject to change and may not be released as originally planned.

CAUTION: Do not install GPUs, network cards, or other PCIe devices on your system that are not validated and tested by Dell. Damage caused by unauthorized and invalidated hardware installation will null and void the system warranty.

Topics:

Key workloads

The Dell PowerEdge XE9785L offers the highest performing GPU in a dense architecture for large scale:

- AI foundational model training
- AI model fine-tuning
- AI inferencing

New technologies

The PowerEdge XE9785L can handle demanding workloads and applications, such as data warehouses, eCommerce, databases, and high-performance computing (HPC).

Table 13. New technologies

Technology	Detailed Description
5th Generation AMD EPYC 9005 Series processor	Core count: Up to 192 core per processor
	5 nm process technology
	AMD Interchip global memory interconnect (xGMI) up to 160 lanes
	Speeds up to 3.6 GHz
	Maximum TDP: 500 W
6400 MT/s DDR5 Memory	Up to 12 channels with 1 DPC per CPU and 24 DIMMs in total
	Supports RDIMM DDR5 with ECC up to 6400 MT/s
PCIe Gen	Gen5 slots
PCIe Slot	Up to twelve PCIe slots with x16 lanes in total
Embedded BOSS: HWRAID 0/1, 2 x M.2 NVMe SSDs	Support up to 2 x M.2 SSD drives with dedicated heat sinks and thermal pads.
Flex I/O	OCP 3.0 (supported by x16 PCIe lanes) (optional)
	Front I/O with: • 1 x USB 3.0 • 1 x Mini-DisplayPort • 1 x USB 2.0 Type-C port • 2 x RJ45 dedicated iDRAC Ethernet port
Accelerator GPUs	• 8 x NVIDIA HGX B300 NVL8 270 GB 1100W SXM6 GPUs, fully interconnected with NVIDIA NVLink technology* • 8 x AMD Instinct™ MI355X 288GB 1400W OAM with AMD Infinity Fabric connectivity
Dedicated PERC	N/A
Software RAID	N/A
Power shelf (21 inch)	• Power shelf is a new generation PSU with a new form-factor and support ORV3 SPEC output connector. It can be configured with six ORV3 5.5 kW power supplies that convert standard AC mains power into a main output of +50 V for powering IT racks and Data centers. • The PMBus communication is from the PSU inside the shelf. PDB supports MODBUS communication. • Interface with PMC card, programming and monitoring with the MODBUS communication protocol. • The PSU can work under redundant mode with hot-swap feature. The PSU can be used as a power. • Module and install into a power shelf to support a 33 kW rack level power solution. It supports N+1. • Configuration which up to six modules totally in paralleling.

NOTE: *Expected to be available in future releases. Planned offerings are subject to change and may not be released as originally planned.

8

Product comparison

Table 14. Comparison of PowerEdge XE9785L and XE9680

Feature	PowerEdge XE9785L	PowerEdge XE9680
Processor	Two 5th Generation AMD EPYC 9005 Series processor with up to 192 cores per processor	• Two 5th Generation Intel Xeon Scalable processors with up to 64 cores or • Two 4th Generation Intel Xeon Scalable processors with up to 56 cores
Chipset	N/A	Intel C741 series chipset
Accelerators	• 8 x NVIDIA HGX B300 NVL8 270 GB 1100W SXM6 GPUs, fully interconnected with NVIDIA NVLink technology* • 8 x AMD Instinct™ MI355X 288GB 1400W OAM with AMD Infinity Fabric connectivity	• 8 x NVIDIA HGX A100 8-GPU, SXM4, PCIe Gen4 • 8 x NVIDIA HGX H100/H200/ H800/H20 8-GPU, SXM5, PCIe Gen5
Memory		
DIMM speed	Up to 6400 MT/s	Up to 5600 MT/s
Memory type	RDIMM	RDIMM
Memory module slots	24 DDR5 DIMM slots	32 DDR5 DIMM slots
	NOTE: Supports registered ECC DDR5 RDIMMs only.	**NOTE:** Supports registered ECC DDR RDIMMs only.
Storage		
Front bays	• Up to 16 x E1.S NVMe direct drives • Up to 8 x U.2 NVMe SSD drives	• Up to 16 x E3.S EDSFF direct from PSB (x4 Gen5) • Up to 8 x U.2 SAS/SATA with fPERC • Up to 8 x U.2 NVMe direct from PSB
Rear bays	N/A	N/A
Storage controllers		
Internal controllers	N/A	PERC12 (SAS4/SATA)
External controllers	N/A	N/A
Software RAID	N/A	N/A
Internal boot	Embedded BOSS: HWRAID 0/1, 2 x M.2 NVMe SSDs	Boot Optimized Storage Subsystem (NVMe BOSS-N1): HWRAID 2 x M.2 SSDs
System management		
Embedded Management	• iDRAC10 • iDRAC Direct • iDRAC RESTful API with Redfish • RACADM CLI • iDRAC Service Module	• iDRAC9 • iDRAC Direct • iDRAC RESTful with Redfish • iDRAC Service Manual

Table 14. Comparison of PowerEdge XE9785L and XE9680 (continued)

Feature	PowerEdge XE9785L	PowerEdge XE9680
OpenManage Console	• OpenManage Enterprise (OME) • OME Power Manager • OME Services • OME Update Manager • OME APEX AIOps Observability	• CloudIQ for PowerEdge plug-in • OpenManage Enterprise • OpenManage Power Manager plug-in • OpenManage Service plug-in • OpenManage Update Manager plug-in
Tools	IPMI	IPMI
OpenManage Integrations	• Red Hat Ansible Modules • Terraform Providers	• BMC TrueSight • OpenManage Integration with ServiceNow • Red Hat Ansible Modules • Terraform Providers
Power supply	6 x 5500 W AC PSUs installed in the power shelf (33 kW)	• 3200 W AC Titanium (available only in the US and Canada) • 3000 W AC Titanium (Multirated supports only XE9680-Gaudi3 configuration) • 2800 W AC Titanium
Ports		
Network options	1 x OCP 3.0 (x16 PCIe lanes)	OCP x8 Mezz 3.0
Front ports	• 1 x USB 3.0 • 1 x Mini-DisplayPort • 1 x USB 2.0 Type-C port • 2 x RJ45 dedicated iDRAC Ethernet port **NOTE:** All front ports are on the FIO (front I/O)	• 1 x USB 2.0 • 1 x iDRAC Direct (Micro-AB USB) port • 1 x VGA
Rear ports	N/A	• 1 x USB 2.0 • 1 x iDRAC Direct Ethernet port • 1 x USB 3.0 • 1 x VGA
Internal ports	1 x USB 3.0	N/A
Slots		
PCIe	Up to 12 x16 Gen5 (x16 PCIe) full-height, half-length	Up to 10 Gen5 (x16 PCIe) full-height, half-length
Form factor	• IR7044 = 44 OU (Open Rack Unit) • IR7050 = 50 OU (Open Rack Unit) • 3 OU compute node **NOTE:** One OU = 48 mm (1.88 inch) height, and 538.98 mm (21.22 inch) width.	6U rack server
Sled imensions and weight		
Height	140.5 mm (5.53 inches)	263.2 mm (10.36 inches)
Width	537 mm (21.14 inches)	482.0 mm (18.97 inches)
Depth	• 1047.95 mm (41.26 inches) with fan • 889.65 mm (35.03 inches) without fan	• 1008.77 mm (39.71 inches) with bezel • 995 mm (39.17 inches) without bezel

Table 14. Comparison of PowerEdge XE9785L and XE9680 (continued)

Feature	PowerEdge XE9785L	PowerEdge XE9680
Weight	• MI355X with 16 x E1.S NVMe direct drives: 95 kg (209.44 pounds) • MI355X with 8 x U.2 NVMe SSD drives + 2 x U.2 CEM card on the PCIe slot: 95.4 kg (210.3 pounds)* • B300 with 16 x E1.S NVMe direct drives: 95 kg (209.44 pounds)* • B300 with 8 x U.2 NVMe SSD drives + 2 x U.2 CEM card on the PCIe slot: 95.4 kg (210.3 pounds)*	H100/H200/H800/H20 with 16 x E3.S SSDs: 107.75 kg (237.55 pounds)

NOTE: *Expected to be available in future releases. Planned offerings are subject to change and may not be released as originally planned.

9

Chassis views and features

Topics:

- Chassis views
- Chassis dimensions
- System weight

Chassis views

System configurations - front view for PowerEdge XE9785L system

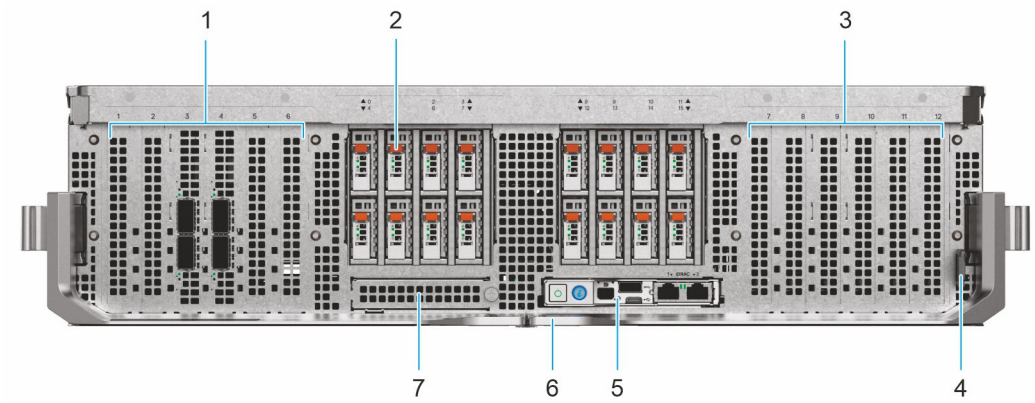

Figure 36. Front view of the 16 x E1.S NVMe direct drive system

Table 15. Features are available on the front of the system

Item	Ports, panels, and slots	Icon	Description
1	PCIe slots (1–6)	N/A	The expansion card riser enables you to connect PCI Express expansion cards. For more information , see the Expansion card installation guidelines section.
2	Drive	N/A	Enables you to install drives that are supported on your system.
3	PCIe slots (7–12)	N/A	The expansion card riser enables you to connect PCI Express expansion cards. For more information , see the Expansion card installation guidelines section.

Table 15. Features are available on the front of the system (continued)

Item	Ports, panels, and slots	Icon	Description
4	Information tag	N/A	The Information tag is a slide-out label that contains system information such as Service Tag and son on.
5	FIO (front I/O) board	N/A	Contains the power button, system ID, Mini-DisplayPort, USB 2.0 Type-C port, USB 3.0, and two RJ45 dedicated iDRAC Ethernet port.
6	Chassis lever	N/A	The chassis lever enables you to slide the system in and out of the rack. **NOTE:** The NIC and MAC address is on the chassis lever. Slide the lever outwards and the NIC and MAC address can be seen on the surface of the lever.
7	OCP NIC 3.0 card (slot 13)	N/A	This port supports OCP 3.0.

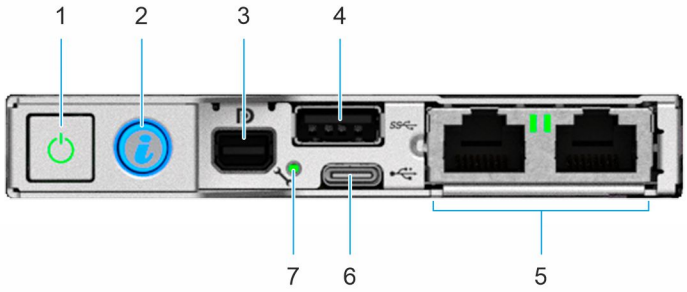

Figure 37. Front I/O board

Table 16. Features are available on the front of the system

Item	Ports, panels, and slots	Description
1	Power button	Integrated LED system for power status.
2	System ID indicator	Indicates the system health.
3	Mini-DisplayPort	Connects to external monitors for video output.
4	USB 3.0 port	Enables you to connect USB devices to the system.
5	RJ45 dedicated iDRAC Ethernet port	Dual-port Ethernet with link/activity LED indicators.
6	USB 2.0 Type-C port	Enables you to access the iDRAC direct USB 2.0 Type-C features.
7	iDRAC direct LED	Indicates the connection status of the iDRAC.

System configurations - rear view for PowerEdge XE9785L system

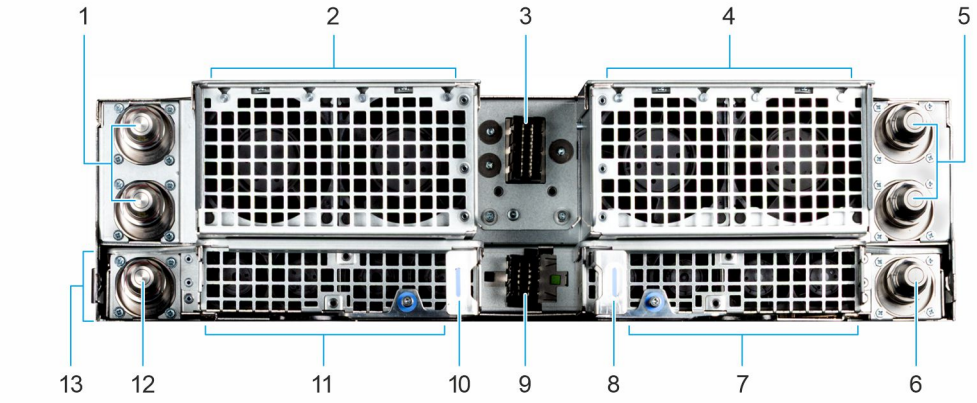

Figure 38. Rear view of the system

Table 17. Rear view of the system

Item	Ports, panels, or slots	Icon	Description
1	Quick connector (1 and 2)	N/A	Liquid cooling system for the GPU module
2	GPU cooling fan (1 and 2)	N/A	Cooling fans for the GPU module
3	Barklip connector	N/A	Supplies power to the GPU module
4	GPU cooling fan (3 and 4)	N/A	Cooling fans for the GPU module
5	Quick connector (3 and 4)	N/A	Liquid cooling system for the GPU module
6	Quick connector (6)	N/A	Liquid cooling system for the CPU module
7	CPU cooling fan (3, 4)	N/A	Cooling fans for the CPU module
8	HPM tray handle	N/A	Enables you to slide the HPM tray in and out of the system chassis.
9	Barklip connector	N/A	Supplies power to the CPU module
10	HPM tray handle	N/A	Enables you to slide the HPM tray in and out of the system chassis.
11	CPU cooling fan (1,2)	N/A	Cooling fans for the CPU module
12	Quick connector (5)	N/A	Liquid cooling system for the CPU module
13	HPM tray	N/A	Tray for the HPM board, power distribution board, system memory, direct liquid cooling modules, and HPM board fans.

System configurations - inside view for PowerEdge XE9785L system

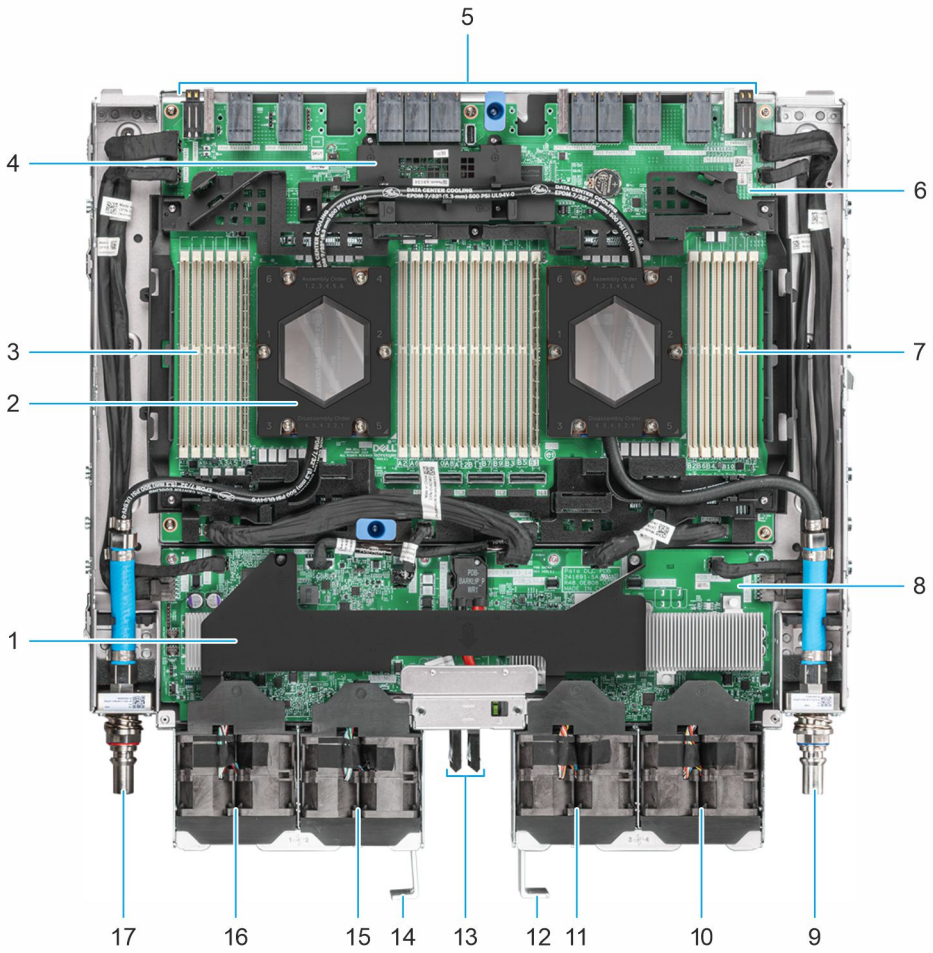

Figure 39. Inside view of the system

1. Air shroud
2. Direct liquid cooling module
3. Memory slots for CPU0
4. iDRAC daughter card (IDC)
5. Power connectors
6. HPM board
7. Memory slots for CPU1
8. Power distribution board (PDB)
9. Quick connector 6
10. HPM board cooling fan (4)
11. HPM board cooling fan (3)
12. HPM tray handle
13. Power busbar
14. HPM tray handle
15. HPM board cooling fan (2)
16. HPM board cooling fan (1)
17. Quick connector 5

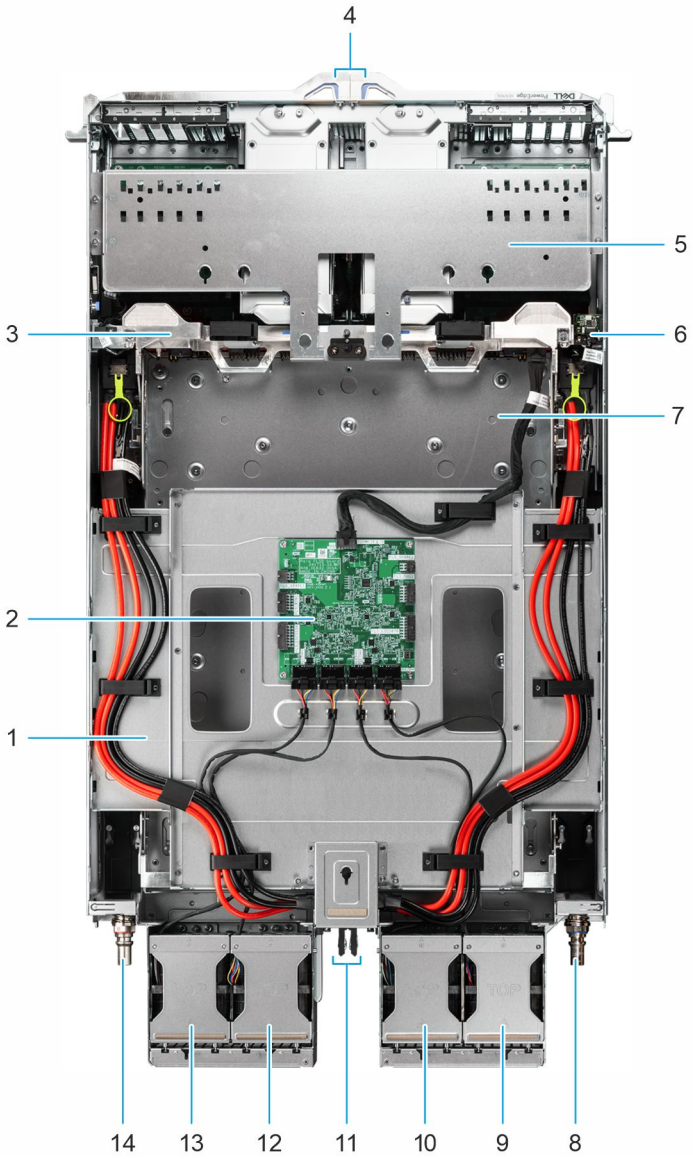

Figure 40. Inside the system view with the GPU tray cover

1. GPU tray cover
2. Fan and leak sensor board (FLSB)
3. GPU tray handle
4. Chassis cam levers
5. Support bar
6. Midplane
7. GPU tray
8. Quick connector 3
9. GPU fan 8
10. GPU fan 7
11. Power bus bar
12. GPU fan 6
13. GPU fan 5
14. Quick connector 2

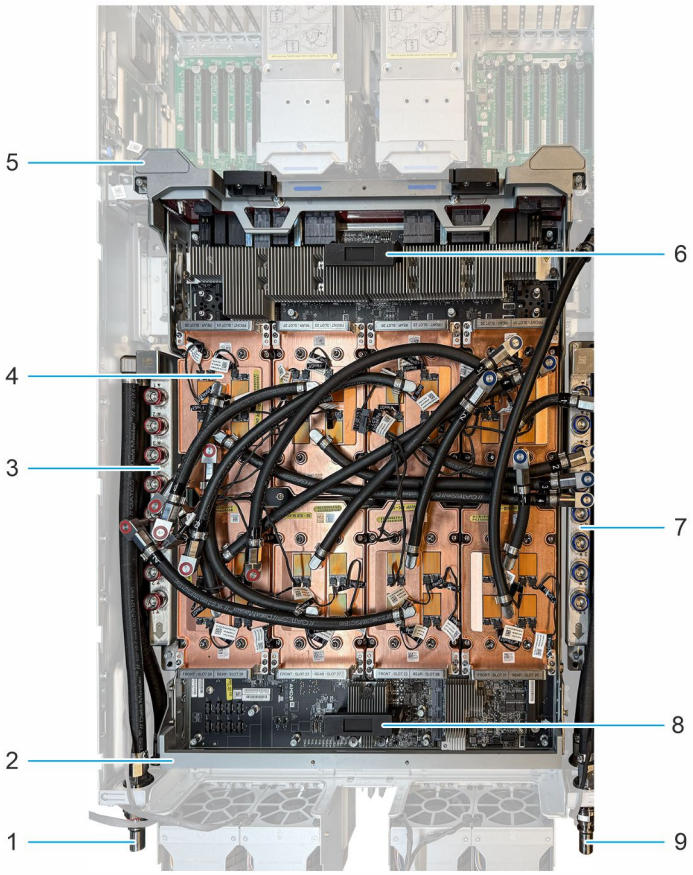

Figure 41. Inside the system view with the GPU direct liquid cooling (DLC) modules

1. Quick connector 2
2. GPU tray rear handle
3. Left inner manifold
4. Direct liquid cooling (DLC) module
5. GPU tray front handle
6. GPU board front handle
7. Right inner manifold
8. GPU board rear handle
9. Quick connector 3

MyDell label for PowerEdge XE9785L system

Figure 42. MyDell label for PowerEdge XE9785L system

Figure 43. MyDell label for XE9785L

Chassis dimensions

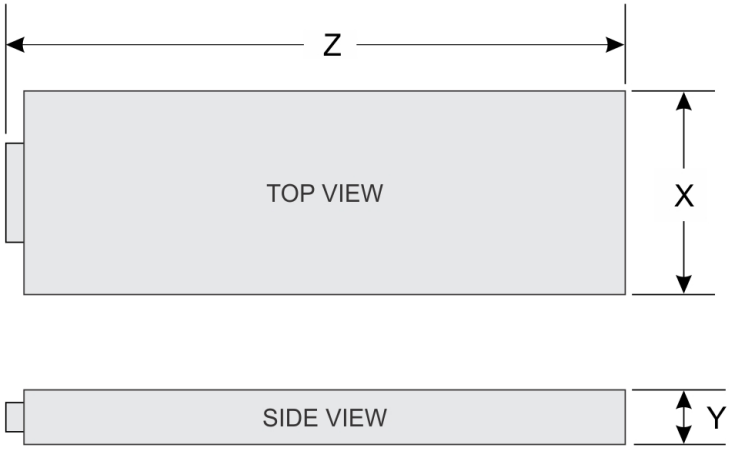

Figure 44. Sled dimensions

Table 18. PowerEdge XE9785L sled dimensions

Drives	X	Y	Z
All configurations	537 mm (21.14 inches)	140.5 mm (5.53 inches)	• 1047.95 mm (41.26 inches) with fan • 889.65 mm (35.03 inches) without fan

System weight

Table 19. PowerEdge XE9785L system weight

System configuration	Maximum weight (with all drives/SSDs)
MI355X with 16 x E1.S NVMe direct drives	95 kg (209.44 pounds)
MI355X with 8 x U.2 NVMe SSD drives + 2 x U.2 CEM card on the PCIe slot.	95.4 kg (210.3 pounds)

Table 20. PowerEdge XE9785L weight handling recommendations

Chassis weight	Description
40–70 pounds	Recommend two people to lift
70–120 pounds	Recommend three people to lift
≥ 121 pounds	Recommend to use a server-lift

WARNING: The system is heavy, so ensure adequate support and balance during movement and installation; a lift is required for loads over 120 pounds, as the system can slide and cause damage when being installed or removed from a higher position on the rack.

10

Processor

Topics:

- Processor features

Processor features

The AMD EPYC™ “Turin” system on a chip (SOC) is a next-generation data center CPU supporting socket compatibility with EPYC™ 7004 “Naples” in SP5+ socket infrastructure. Based on of AMD’s new enhanced Zen5 and Zen5C CPU core with integrated I/O controllers, AMD EPYC™ “Turin” SOC offers significant performance improvement from current generation production and the best performance per price and lowers TCO through an optimal balance of compute, memory, I/O, and security.

The following lists the features and functions in the AMD Family 1 Ah Models 00h-0Fh and 10H-1FH Socket SP5 processors:

- Zen5 cores
  - Up to 192 cores with 2 x threads per socket and up to 500 W TDP
  - Up to 32 MB L3 shared by 16 cores/CCD
  - 1 MB L2/core, 32/48 KB instruction/data L1 per core
- Memory
  - 24 DDR5 memory channels up to 6400 MT/s
  - RDIMM
- Integrated I/O
  - PCIe Gen5 supports peak xGMI3 product speeds up to 32 Gbps
  - Up to 128 lanes of high-speed I/O
  - Server Controller Hub (USB, UART, SPI, LPC, I2C, and so on)

Supported processors

The following table shows the 5th Generation AMD EPYC 9005 Series processor SKUs that are supported on the XE9785L.

Table 21. 5th Generation AMD EPYC 9005 Series processors for XE9785L

Processor	Clock Speed (GHz)	Cache (M)	Cores	Threads	Memory Speed (MT/s)	Memory Capacity	TDP
9965*	2	384	192	384	6400	3 TB	500
9755*	2.6	512	128	256	6400	3 TB	500
9845*	2	320	160	320	6400	3 TB	400
9825*	2	384	144	288	6400	3 TB	400
9655	2.6	384	96	192	6400	3 TB	400
9575F	3	256	64	128	6400	3 TB	400
9475F*	3.6	256	48	96	6400	3 TB	360
9455*	2.9	256	48	96	6400	3 TB	300

NOTE: *Expected to be available in future releases. Planned offerings are subject to change and may not be released as originally planned.

11

Memory subsystem

Topics:

- Supported memory

Supported memory

Table 22. Memory technology comparison

Feature	PowerEdge XE9785L (DDR5)
DIMM type	RDIMM
Transfer speed	6400 MT/s (1DPC) **NOTE:** Maximum DIMM transfer speed support dependent on CPU SKU and DIMM population
Voltage	1.1 V

Table 23. Supported DIMMs

Rated DIMM Speed (MT/s)	DIMM Type	DIMM Capacity (GB)	Ranks per DIMM	Data Width	DIMM Volts (V)
6400	RDIMM	96	2	x8	1.1
6400	RDIMM	128	2	x8	1.1
6400	RDIMM	256*	2	X8	1.1

Table 24. Supported memory matrix

DIMM type	Rank	Capacity	DIMM rated voltage and speed	Operating Speed
				1 DIMM per channel (DPC)
RDIMM	2 R	96 GB, 128 GB, 256 GB*	DDR5 (1.1 V), 6400 MT/s	Up to 6400 MT/s

NOTE: *Expected to be available in future releases. Planned offerings are subject to change and may not be released as originally planned.

NOTE: The processor may reduce the performance of the rated DIMM speed.

12

Storage

Topics:

- Supported Drives
- Internal storage configuration

Supported Drives

The table that is shown below lists the internal drives that are supported in XE9785L.

Table 25. Supported E1.S NVMe direct drives

Form Factor	Type	Speed	Rotational Speed	Capacities
E1.S	NVMe RI	Gen5	N/A	3.84 TB, 7.68 TB
E1.S	NVMe MU	Gen5	N/A	3.84 TB, 7.68 TB
E1.S	NVMe Ent.	Gen5	N/A	3.84 TB, 7.68 TB
E1.S	NVMe DC RI	Gen5	N/A	3.84 TB, 7.68 TB

Table 26. Supported U.2 NVMe SSD drives*

Form Factor	Type	Speed	Rotational Speed	Capacities
U.2	NVMe RI	Gen4	N/A	960 GB, 1.92 TB, 3.84 TB, 7.68 TB, 15.36 TB
U.2	NVMe MU	Gen4	N/A	800 GB, 1.6 TB, 3.2 TB, 6.4 TB, 12.8 TB
U.2	NVMe FIPS.	Gen4	N/A	480 GB, 960 GB, 1.92 TB, 3.84 TB, 7.68 TB, 12.8 TB, 15.36 TB
U.2	NVMe Ent.	Gen4	N/A	1.6 TB, 3.2 TB, 6.4 TB, 12.8 TB, 15.36 TB, 30.72 TB

NOTE: *Expected to be available in future releases. Planned offerings are subject to change and may not be released as originally planned.

Internal storage configuration

Table 27. Internal Storage Configuration Matrix

CFG	Total HDD/ SSD (not BOSS)	NVMe Enabled/ Universal slots	1st Front Storage	2nd Front Storage	3rd Front Storage	4th Front Storage	PERC Qty	Storage Controller(s)
C01	16	16/0	0x E1.S NVMe	0x E1.S NVMe	0x E1.S NVMe	0x E1.S NVMe	0	N/A

Table 27. Internal Storage Configuration Matrix (continued)

CFG	Total HDD/ SSD (not BOSS)	NVMe Enabled/ Universal slots	1st Front Storage	2nd Front Storage	3rd Front Storage	4th Front Storage	PERC Qty	Storage Controller(s)
C02	16	16/0	4x E1.S NVMe	4x E1.S NVMe	4x E1.S NVMe	4x E1.S NVMe	0	N/A
C03*	8	8/0	4x2.5-inch NVMe	4x2.5-inch NVMe	N/A	N/A	0	N/A

NOTE: *Expected to be available in future releases. Planned offerings are subject to change and may not be released as originally planned.

13

Networking

Topics:

Overview

PowerEdge offers a wide variety of options to get information moving to and from our servers. Industry best technologies are chosen and these adapters are rigorously validated for worry-free, fully supported use in Dell servers.

OCP 3.0 support

Table 28. OCP 3.0 feature list

Feature	OCP 3.0
Form factor	SFF
PCIE Gen	Gen5
Max PCIe width	x16
Max no. of ports	4
Port type	BT/SFP/SFP+/SFP28
Max port speed	1GbE*, 10GbE, 25 GbE*, 100 GbE*
NC-SI	Yes
SNAPI	No
WoL	Yes
Power consumption	N/A

NOTE: *Expected to be available in future releases. Planned offerings are subject to change and may not be released as originally planned.

Supported OCP cards

Table 29. Supported OCP cards

Form factor	Vendor	Port type	Port speed	Port count
OCP 3.0	Broadcom**	QSFP56	100 GbE	2
	NVIDIA**	QSFP56	100 GbE	2
	Intel*	QSFP56	100 GbE	2
	Broadcom**	SFP	25 GbE	4
	Intel*	SFP28	25 GbE	4

Table 29. Supported OCP cards (continued)

Form factor	Vendor	Port type	Port speed	Port count
	Intel*	SFP28	25 GbE	2
	NVIDIA*	SFP28	25 GbE	2
	Broadcom	SFP28	25 GbE	2
	Broadcom**	SFP28	10 GbE	4
	Intel*	SFP28	10 GbE	4
	Intel*	BT	10 GbE	2
	Broadcom	BT	10 GbE	2

NOTE: *Expected to be available in future releases. Planned offerings are subject to change and may not be released as originally planned.

NOTE: **Supported OCP 3.0 for MI355X configuration that is expected to be available in future releases. Planned offerings are subject to change and may not be released as originally planned.

OCP NIC 3.0

Table 30. OCP 3.0 specifications

Form Factor	OCP 3.0	Notes
PCIe Gen	Gen5	Supported OCP3 is SFF (small form factor).
Max PCIe Lanes	Up to x16	See server slot priority matrix.
Shared LOM	Yes	This is iDRAC port redirect.
Aux Power	Yes	Used for Shared LOM.

14

PCIe subsystem

Topics:

- PCIe slot mechanical compatibility matrix
- Expansion card installation guidelines

PCIe slot mechanical compatibility matrix

Table 31. PCIe riser configurations

Config No.	Riser configuration	No. of Processors	PERC type supported	Rear storage possible
0	NO RSR	2	No	No

Table 32. PCIe slot mechanical compatibility matrix

Riser configuration 0
No riser

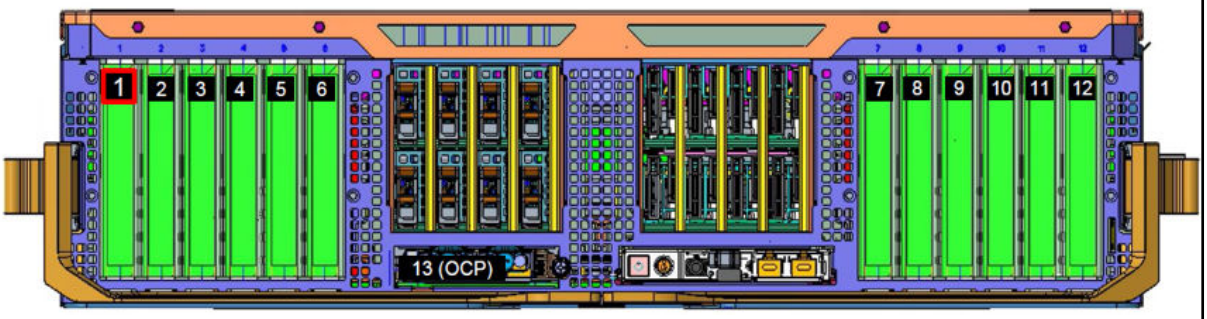

Figure 45. PCIe slot mechanical compatibility matrix

Expansion card installation guidelines

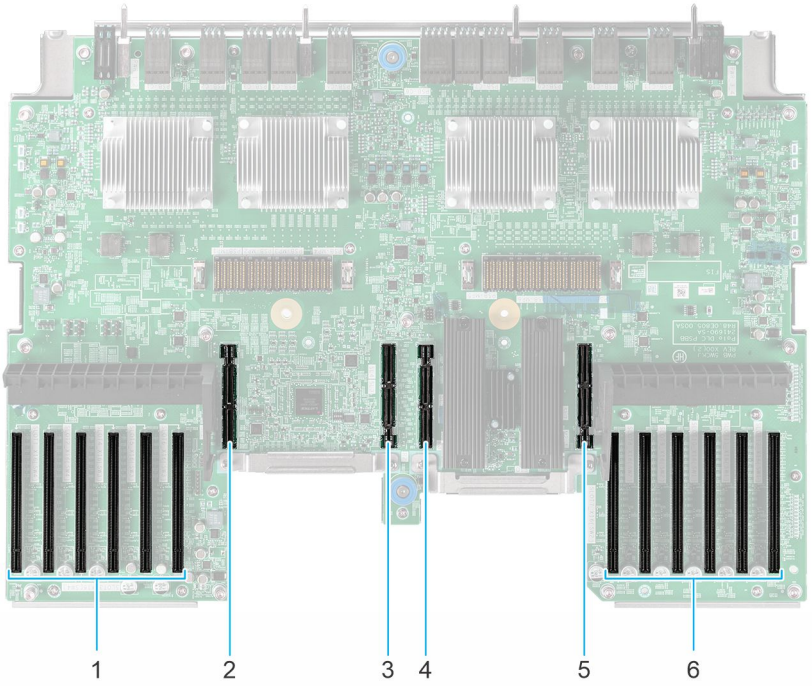

Figure 46. Expansion card slot connectors

1. PCIe slot 1 to 6
2. Backplane connector
3. Backplane connector
4. Backplane connector
5. Backplane connector
6. PCIe slot 7 to 12

The following table provides guidelines for installing expansion cards to ensure proper cooling and mechanical fit. The expansion cards with the highest priority should be installed first using the slot priority indicated. All the other expansion cards should be installed in the card priority and slot priority order.

Table 33. Expansion card configurations

Riser configuration	Expansion card risers	Number of processors	PERC type supported	Rear storage possible
No Riser + SW1 + SW2 + SW3 + SW4 with MI355X	No riser	2	No	No

Table 34. Configuration-0: No riser

Card type	Slot priority	Maximum number of cards
AMD (GPU: MI355X, LCV2)	21, 22, 23, 24, 25,26, 27, 28	8
Intel (OCP: 10Gb, 4P)	13	1
Intel (OCP: 10Gb, 2P)	13	1
Broadcom (OCP: 10Gb, 4P)	13	1
Broadcom (OCP: 100Gb, 2P)	13	1
NVIDIA (OCP: 100Gb, 2P)	13	1
Intel (OCP: 100Gb, 2P)	13	1

Table 34. Configuration-0: No riser (continued)

Card type	Slot priority	Maximum number of cards
Broadcom (OCP: 25Gb, 4P)	13	1
Intel (OCP: 25Gb, 4P)	13	1
Intel (OCP: 25Gb, 2P)	13	1
NVIDIA (OCP: 25Gb, 2P)	13	1
Broadcom (OCP: 25Gb, 2P)	13	1
Broadcom (OCP: 10Gb, 2P)	13	1
NVIDIA (DPU: 200Gb, FH)	11, 2, 8, 5	4
NVIDIA (SuperNIC: 400Gb, FH)	11, 2, 8, 5	4
AMD (NIC: 400Gb, FH)	6, 7, 3, 10, 9, 4, 12, 1, 11, 2, 8, 5	12
NVIDIA (NIC:400Gb, FH)	6, 7, 3, 10, 9, 4, 12, 1, 11, 2, 8, 5	8
Broadcom (NIC: 200Gb, FH, 2P)	6, 7, 3, 10, 9, 4, 12, 1, 11, 2, 8, 5	12
Broadcom (NIC: 100Gb, FH, 2P)	6, 7, 3, 10, 9, 4, 12, 1, 11, 2, 8, 5	12
NVIDIA (NIC: 100Gb, FH, 2P)	6, 7, 3, 10, 9, 4, 12, 1, 11, 2, 8, 5	12
NVIDIA (NIC: 200Gb, FH, 2P)	6, 7, 3, 10, 9, 4, 12, 1, 11, 2, 8, 5	12
Intel (NIC: 100Gb, FH, 2P)	6, 7, 3, 10, 9, 4, 12, 1, 11, 2, 8, 5	12
WINSTRON (CEM: U.2)	8, 5	2
NVIDIA (DPU: 200Gb, FH)	11, 2, 8, 5	4
NVIDIA (DPU: 400Gb, FH)	11, 2, 8, 5	4
WINSTRON (embedded BOSS)	14	1

15

Power, thermal, and acoustics

PowerEdge servers have an extensive collection of sensors that automatically track thermal activity, which helps to regulate temperature by reducing server noise and power consumption. The table below lists the tools and technologies Dell offers to lower power consumption and increase energy efficiency.

Topics:

Power

Table 35. Power tools and technologies

Feature	Description
Power Supply Units(PSU) portfolio	Dell's PSU portfolio includes intelligent features such as dynamically optimizing efficiency while maintaining availability and redundancy. Find additional information in the Power supply units section.
Tools for right sizing	Enterprise Infrastructure Planning Tool (EIPT) is a tool that can help you determine the most efficient configuration possible. With Dell's EIPT, you can calculate the power consumption of your hardware, power infrastructure, and storage at a given workload. Learn more at Dell EIPT.
Industry Compliance	Dell's servers are compliant with all relevant industry certifications and guide lines, including 80 PLUS, Climate Savers and ENERGY STAR.
Power monitoring accuracy	PSU power monitoring improvements include: ● Dell's power monitoring accuracy is currently 1%, whereas the industry standard is 5% ● More accurate reporting of power
Rack infrastructure	Dell offers some of the industry's highest-efficiency power infrastructure solutions, including: ● Power distribution units (PDUs) ● Uninterruptible power supplies (UPSs) ● Energy Smart containment rack enclosures ● AC Blind Mate Find additional information at: Power and Cooling

Power Supply Units

Power shelf is the new generation PSU with a new form factor and support ORV3 SPEC output connector. Functionally, it continues the characteristics of the previous features such as EPR (extended power range), but with higher power density and smaller size. The PSU supports Star connection and Delta connection for the range 346 to 415 VL-L and 200 to 240 VL-L. The power shelf can support a high pulse load. The average power over any 10 second period and more shall not exceed 100% of rated full load power. This power shelf does not support mixed use of different PSU, PMC, and power shelf chassis. The table below shows the power supply unit options that are available for the XE9785L.

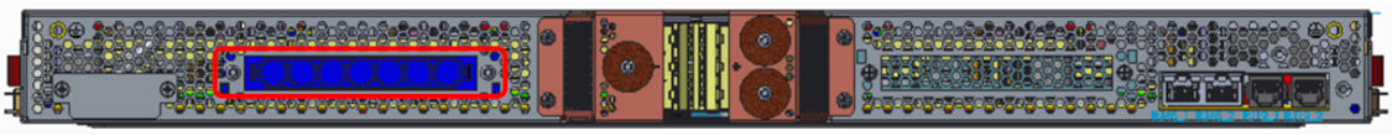

Figure 47. Power shelf

Table 36. Power supply unit options

Wattage	Frequency (Hz)	Voltage	Class	Heat dissipation
33000 W	47-63	180-350 Vac / 26 A	Titanium	TBD

NOTE: Do not mix PSUs from different vendors within a single system configuration to ensure optimal performance and reliability.

Thermal

PowerEdge servers have an extensive collection of sensors that automatically track thermal activity, which helps regulate temperature thereby reducing server noise and power consumption.

Thermal design

Thermal management of the platform helps deliver high performance with the right amount of cooling to components, while maintaining the lowest fan speeds possible. This is done across a wide range of ambient temperatures from 10°C to 35°C (50°F to 95°F) and to extended ambient temperature ranges.

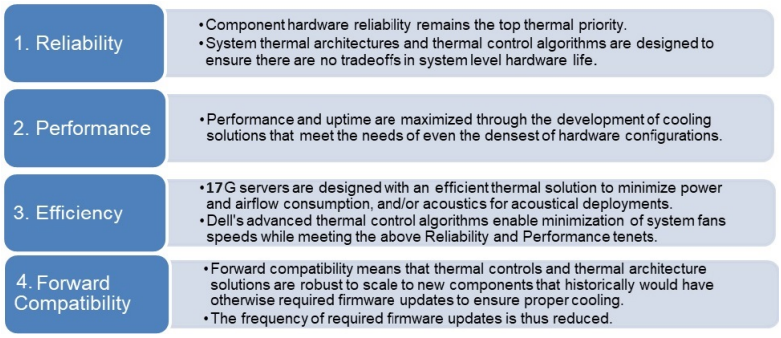

Figure 48. Thermal design characteristics

The thermal design of the PowerEdge XE9785L reflects the following:

- Optimized thermal design: The system layout is architected for optimum thermal design.
- System component placement and layout are designed to provide maximum airflow coverage to critical components with minimum expense of fan power.
- Comprehensive thermal management: The thermal control system regulates the fan speed based on several different responses from all system-component temperature sensors, and inventory for system configurations. Temperature monitoring includes components such as processors, DIMMs, chipset, the inlet air ambient, hard disk drives, and OCP.
- Open and closed loop thermal fan speed control: Open loop thermal control uses system configuration to determine fan speed based on inlet air ambient temperature. Closed loop thermal control method uses feedback temperatures to dynamically determine proper fan speeds.
- User-configurable settings: With the understanding and realization that every customer has unique set of circumstances or expectations from the system. For more information, see the Dell PowerEdge XE9785L Installation and Service Manual at PowerEdge Manuals and “Advanced Thermal Control: Optimizing across Environments and Power Goals” on Dell.com.
- Cooling redundancy: The XE9785L allows N+1 fan redundancy, allowing continuous operation with one fan failure in the system.
- Environmental Specifications: The optimized thermal management makes the XE9785L reliable under a wide range of operating environments.

Acoustics

Acoustical configurations

Dell PowerEdge XE9785L is a rack-mount server appropriate for unattended data center environment. However, lower acoustical output is attainable with proper hardware or software configurations.

Table 37. Acoustical configuration

Configuration names	MI355X typical
Acoustical category	Category 6
Processor	2 x 5th Generation AMD EPYC 9005 Series processor
Memory	24 x 128 GB RDIMM DDR5
Storage	TBD
M.2	1 x eBOSS (960 GB)
OCP	4 x 10 Gb
Power supply unit	ORV3
PCI 1 (location TBD)	8x Thor2
PCI 2 (location TBD)	2x Thor2
GPU	8 x AMD Instinct™ MI355X 288GB 1400W OAM with AMD Infinity Fabric connectivity
PERC	No
Bezel	No

16

Rack, rails, and cable management

Topics:

Rack, rails and cable management

The rail offerings for the PowerEdge XE9785L consist of static rails. The cable management offerings, cable management arm (CMA) and an optional strain relief bar (SRB) are not supported.

Key factors in selecting the proper rails include:

- Identifying the type of rack in which they will be installed.
- The spacing between the front and rear mounting flanges of the rack.
- The type and location of any equipment mounted in the back of the rack such as power distribution units (PDUs), and the overall depth of the rack
- Rack types that are supported for various rack mounting flange types.

Static rails Information

The XE9785L support L-bracket static rails. The L-bracket static rails (shown in the figure below) matches Open Rack Frame V3 specification, do not support service ability in the rack. The static rails are not compatible with the CMA and SRB.

L-Bracket Static Rails for 21-inch Open Computing Project Racks:

- Snap into the sides of the rack.
- Support installation in 2-inch ORv3 rack

Static rails

Ready rails static rails for 4-post & 2-post Racks: The ReadyRails static rails also supports tool-less installation to 4-post racks with square or unthreaded round mounting holes including all generations of Dell racks. The static rails support tooled mounting in 2-post (Telco) racks as well for added versatility.

Figure 49. Static rails for XE9785L

Rack installation

The XE9785L offers L-bracket rail that matched Open Rack Frame V3 specification and snap into the sides of ORv3 Rack. See the rack Installation and Service Manual for installation information.

NOTE: Link will be available post RTS.

Figure 50. Installing the static rails in IR7000 rack before installing XE9785L system

17

Operating Systems and Virtualization

Topics:

- Supported operating systems

Supported operating systems

The PowerEdge XE9785L system supports the following operating systems:

- Canonical Ubuntu Server LTS
- Red Hat Enterprise Linux
- SUSE Linux Enterprise Server

For specifications and interoperability details, see OS support.

18

Dell Systems Management

Dell delivers management solutions that help IT administrators effectively deploy, update, monitor, and manage IT assets. Dell solutions and tools enable you to quickly respond to problems by helping them to manage Dell servers efficiently; in physical, virtual, local, and remote environments; all without the need to install an agent in the operating system.

The OpenManage portfolio includes:

- Innovative embedded management tools - integrated Dell Remote Access Controller (iDRAC)
- Consoles - OpenManage Enterprise
- Extensible with plug-ins - OpenManage Power Manager
- Update tools - Repository Manager

Dell has developed comprehensive systems management solutions that are based on open standards and has integrated with management consoles from partners such as Microsoft and VMware, allowing advanced management of Dell servers. Dell management capabilities extend to offerings from the industry's top systems management vendors and frameworks such as Ansible, Splunk, and ServiceNow. OpenManage tools automate the full span of server life cycle management activities along with powerful RESTful APIs to script or integrate with your choice of frameworks.

For more information about the entire OpenManage portfolio, see:

- The latest Dell Systems Management Overview Guide.

Topics:

Integrated Dell Remote Access Controller (iDRAC)

iDRAC10 delivers advanced, agent-free, local and remote server administration. Embedded in every PowerEdge server, iDRAC10 provides a secure means to automate a multitude of common management tasks. Because iDRAC is embedded within every PowerEdge server, there is no additional software to install; plug in power and network cables, and iDRAC is ready to go. Even before installing an operating system (operating system) or hypervisor, IT administrators have a complete set of server management features at their fingertips.

With iDRAC10 in-place across the Dell PowerEdge portfolio, the same IT administration techniques and tools can be applied throughout. This consistent management platform allows scaling of PowerEdge servers as an organization's infrastructure grows. Customers can use the iDRAC RESTful API for the latest in scalable administration methods of PowerEdge servers. With this API, iDRAC enables support for the Redfish standard and enhances it with Dell extensions to optimize at-scale management of PowerEdge servers.

Zero-Touch Provisioning (ZTP) is embedded in iDRAC. ZTP is an Intelligent Automation Dell's agent-free management. Once a PowerEdge server is connected to power and networking that system can be monitored and fully managed, whether you are standing in front of the server or remotely over a network. With no need for software agents, an IT administrator can:

- Monitor
- Manage
- Update
- Troubleshoot, and remediate Dell servers.

With features like zero-touch deployment and provisioning, and System Lockdown, iDRAC10 is purpose-built to simplify server administration. For those customers whose existing management platform uses in-band management, Dell does provide iDRAC Service Module, a lightweight service that can interact with both iDRAC10 and the host operating system to support legacy management platforms.

When ordered with DHCP enabled from the factory, PowerEdge servers can be automatically configured when they are initially powered up and connected to your network. This process uses profile-based configurations that ensure each server is configured per your specifications.

iDRAC10 offers the following license:

Table 38. iDRAC10 license for PowerEdge XE9785L system:

License	Description
iDRAC10 Datacenter	• Available as an upsell on all servers. • Includes additional automation features and virtual console and security features. • Bundled with Secure Enterprise Key Management (SEKM) and Secure Component Verification (SCV) licenses. • Includes key features such as telemetry streaming and thermal management. • Includes advanced accelerators (GPU and DPU) system management and advanced air and liquid cooling.

For a full list of iDRAC features by license tier, see the **Integrated Dell Remote Access Controller 10 User's Guide** at Dell.com.

For more details on iDRAC10 including white papers and videos, see:

- Support for Integrated Dell Remote Access Controller 10 (iDRAC10) is on the Knowledge Base page at Dell.com

Systems Management software support matrix

Table 39. Systems Management software support matrix

Categories	Features	PE mainstream
Embedded Management and In-band Services	iDRAC10 (Datacenter license)	Supported
	OpenManage Mobile	Supported
	OM Server Administrator (OMSA)	Supported
	iDRAC Service Module (iSM)	Supported
	Driver Pack	Supported
Change Management	Update Tools (Repository Manager, DSU, Catalogs)	Supported
	Server Update Utility	Supported
	Lifecycle Controller Driver Pack	Supported
	Bootable ISO	Supported
Console and Plug-ins	OpenManage Enterprise	Supported
	Power Manager Plug-in	Supported
	Update Manager Plug-in	Supported
	SupportAssist Plug-in	Supported
	CloudIQ	Supported
Integrations and connections	OM Integration with VMware Vcenter/vROps	Supported
	OM Integration with Microsoft System Center (OMIMSC)	Supported
	Integrations with Microsoft System Center and Windows Admin Center (WAC)	Supported
	ServiceNow	Supported
	Ansible	Supported
	Third-party Connectors (Nagios, Tivoli, Microfocus)	Supported
Security	Secure Enterprise Key Management	Supported
	Secure Component Verification	Supported
Standard operating system	Red Hat Enterprise Linux	Supported (Tier-1)

19

Appendix A. Additional specifications

Topics:

NIC port specifications

The PowerEdge XE9785L system supports up to two 10/100/1000 Mbps Network Interface Controller (NIC) ports on the front I/O card and an optional Open Compute Project (OCP) card.

Table 40. NIC port specification for the system

Feature	Specifications
Ethernet ports on the Front I/O board	2 x 1 Gb
OCP NIC 3.0 card	4 x 10 GbE, 2 x 10 GbE*, 4 x 25 GbE*, 2 x 25 GbE*, 2 x 100 GbE*

NOTE: *Expected to be available in future releases. Planned offerings are subject to change and may not be released as originally planned.

NOTE: The PowerEdge XE9785L supports OCP x16.

USB ports specifications

Table 41. Systems USB Specifications

Front		Rear		Internal	
USB port type	**No. of ports**	**USB port type**	**No. of ports**	**USB port type**	**No. of ports**
USB 3.0 - compliant port	1	N/A	N/A	USB 3.0 - compliant port	1
USB 2.0 Type_C compliant port	1	N/A	N/A	N/A	N/A

PSU specifications

The PowerEdge XE9785L system supports the 21-inch, 50 V, 33000 W Power Shelf.

Video specifications

The PowerEdge XE9785L system supports integrated Matrox G200 graphics controller with 16 MB of video frame buffer.

Table 42. Supported video resolution options

Resolution	Refresh rate (Hz)	Pixel clock (MHz)
1024 x 768	60	65.0
1280 x 800	60	83.5
1280 x 1024	60	108.0
1360 x 768	60	85.5
1440 x 900	60	106.5
1600 x 900	60	97.75
1600 x 1200	60	162.0
1680 x 1050	60	119.0
1920 x 1080	60	173.0
1920 x 1200	60	193.25

Environmental specifications

NOTE: For additional information about environmental certifications, refer to the *Product Environmental Datasheet* located with the **Manuals & Documents** on Dell Support.

Table 43. Continuous Operation Specifications for ASHRAE A2

Operational/non-operational conditions	Allowable operations
Maximum temperature gradient (applies to both operation and non-operation)	20 °C in an hour* (36 °F in an hour) and 5 °C in 15 minutes (9 °F in 15 minutes), 5 °C in an hour* (9 °F in an hour) for tape hardware.
Non-operational temperature limits	-5°C ** to 65°C (23°F to 149°F)
Non-operational humidity limits (non-condensing at all times)	5% to 95% RH with 27 °C (80.6 °F) maximum dew point.
Maximum non-operational altitude	12,000 meters (39,370 feet)
Maximum operational altitude	3050 meters (10,006 feet)
Battery storage	See appendix C

NOTE: * Per ASHRAE thermal guidelines, these are not instantaneous rates of temperature change.

NOTE: ** Liquid filled components, or systems/solutions containing liquid filled components are limited to approximately 5 °C above their freeze point. At this time, the only authorized liquid coolant is Recochem PG25 with a freeze point between -9 °C and -13 °C, therefore the lower non-operational temperature limit is -5 °C.

Thermal restriction matrix

Table 44. Label reference

Label	Description
STD	Standard
HPR (Silver)	High-performance Silver (HPR SLVR) fan

Table 44. Label reference (continued)

Label	Description
HPR (Gold)	High-performance Gold (HPR GOLD) fan
HSK	Heat sink
LP	Low profile
FH	Full height
DLC	Direct Liquid Cooling

Table 45. Thermal restriction matrix

Configuration	Processor number	TDP (W)	Core count	Fan type
16 x E1.S NVMe direct drives, AMD MI355X, and 12 x FH PCIe cards	9965	500	192	STD fan, supported at 35°C
	9755	500	128	STD fan, supported at 35°C
	9655	400	96	STD fan, supported at 35°C
	9575F	400	64	STD fan, supported at 35°C

Table 46. Thermal restriction matrix for DIMMs

Configuration	DIMM capacity (GB)	Fan type
16 x E1.S NVMe direct drives, AMD MI355X, and 12 x FH PCIe cards	128	STD fan, supported at 35°C
	96	STD fan, supported at 35°C

NOTE: E1.S NVMe direct drive blanks, OCP NIC card blank, and PCIe blanks are required if they are not installed.

NOTE: DPU card support up to ASHRAE A2.

20

Appendix B. Standards compliance

The system conforms to the following industry standards.

Table 47. Industry standard documents

Standard	URL for information and specifications
ACPIAdvance Configuration and Power Interface Specification, v6.4	ACPI
Ethernet IEEE Std 802.3-2022	IEEE Standards
MSFT WHQL Microsoft Windows Hardware Quality Labs	Windows Hardware Compatibility Program
IPMI Intelligent Platform Management Interface, v2.0	IPMI
DDR5 Memory DDR5 SDRAM Specification	DDR5 SDRAM
PCI Express PCI Express Base Specification, v5.0	PCIe specifications
PMBus Power System Management Protocol Specification, v1.2	PMBus specifications
TPM Trusted Platform Module Specification, v1.2 and v2.0	TPM specifications
UEFI Unified Extensible Firmware Interface Specification, v2.7	UEFI specifications
PI Platform Initialization Specification, v1.7	
USB Universal Serial Bus v2.0 and SuperSpeed v3.0 (USB 3.1 Gen1)	USB document library
NVMe Express Base Specification. Revision 2.0c	NVMe specifications
NVMe Command Set Specifications 1. NVM Express NVM Command Set Specification. Revision 1.1c 2. NVM Express Zoned Namespaces Command Set. Revision 1.0c 3. NVM Express® Key Value Command Set. Revision 1.0c	
NVMe Transport Specifications 1. NVM Express over PCIe Transport. Revision 1.0c 2. NVM Express RDMA Transport Revision. 1.0b 3. NVM Express TCP Transport. Revision 1.0c	
NVMe NVM Express Management Interface. Revision 1.2c	
NVMe NVMe Boot Specification. Revision 1.0	

21

Appendix C: Additional resources

Table 48. Additional resources

Resource	Description of contents	Location
Installation and Service Manual	This manual, available in PDF format, provides the following information: • Chassis features • System Setup program • System indicator codes • System BIOS • Remove and replace procedures • Diagnostics • Jumpers and connectors	Dell.com/Support/Manuals
Getting Started Guide	This guide ships with the system, and is also available in PDF format. This guide provides the following information: • Initial setup steps	Dell.com/Support/Manuals
Rack Installation Guide	This document ships with the rack kits, and provides instructions for installing a server in a rack.	Dell.com/Support/Manuals
System Information Label	The system information label documents the system board layout and system jumper settings. Text is minimized due to space limitations and translation considerations. The label size is standardized across platforms.	Inside the system chassis cover
Quick Resource Locator (QRL)	This code on the chassis can be scanned by a phone application to access additional information and resources for the server, including videos, reference materials, service tag information, and Dell contact information.	Inside the system chassis cover
Enterprise Infrastructure Planning Tool (EIPT)	The Dell online EIPT enables easier and more meaningful estimates to help you determine the most efficient configuration possible. Use EIPT to calculate the power consumption of your hardware, power infrastructure, and storage.	Dell.com/calc

22

Appendix D: Service and support

Topics:

Why attach service contracts

Dell PowerEdge XE servers include a standard three-year hardware warranty covering repair or replacement of defective components. This warranty reflects the commitment to product quality but is limited to hardware-related issues and does not include software support. For extended warranty coverage and comprehensive support of both hardware and software, choose the ProSupport Infrastructure Suite.

ProSupport Infrastructure Suite

Enterprise-class support that aligns with the criticality of your systems, the complexity of your environment, and how you allocate your IT resources. ProSupport Infrastructure Suite offers three service tiers: Basic Hardware Support, ProSupport for Infrastructure and ProSupport Plus for Infrastructure. These services extend hardware coverage, ensuring continued support beyond the standard warranty period. ProSupport and ProSupport Plus also address common software-related issues, ensuring comprehensive support for both hardware and software. ProSupport Plus offers enhanced capabilities, including support for third-party software, proactive system maintenance, and personalized guidance for performance optimization and other advanced needs. To ensure uninterrupted operation and optimal performance of Dell PowerEdge XE servers, it is recommended to evaluate and select the appropriate ProSupport Infrastructure Suite service based on the specific requirements of your environment.

	Basic Hardware Support[1]	ProSupport	BEST ProSupport Plus
Outcome Assistance and Advocacy *via assigned Technical Customer Success Manager* ⓘ			
Enjoy a frictionless customer experience with cross-functional lifecycle management aligned to your goals			✓
Accelerate time-to-value through onboarding assistance, education and success planning			✓
Turn challenges into opportunities with actionable strategies powered by data and AI-driven analytics			✓
Ensure coverage continuity while preparing to scale for future success			✓
Proactive Monitoring & Actionable Insights *via Dell's connectivity solutions and tools*			
Quickly visualize performance through a current system health score		✓	✓
Cybersecurity monitoring and mitigation recommendations provide another layer of protection		✓	✓
Predictive performance and capacity analysis address bottlenecks		✓	✓
Prevent or plan for downtime with predictive hardware anomaly detection		✓	✓
Energy consumption and carbon footprint forecasting support sustainability and stewardship initiatives		✓	✓
Get ahead of problems with proactive issue detection with automated case creation	✓	✓	✓
Streamline internal IT efforts with efficient service request and escalation management tools	✓	✓	✓
Minimize disruptions by self-dispatching eligible parts	✓	✓	✓
Support Essentials			
Receive an assigned incident manager for Sev 1 issues who will work your issue through to resolution		✓	✓
Count on Mission Critical Support during Sev 1 incidents and natural disasters ⓘ			✓
Keep systems code current and performing at peak through Proactive System Maintenance			✓
Get priority access to senior technical support engineers—skip the queues and callbacks			✓
Bringing your own software? We provide limited 3rd party software support ⓘ			✓
Choose onsite parts delivery and labor response that meets your needs	Next Business Day	NBD or 4-hour	4-hour
Select product coverage that best augments your internal resources	Hardware	Hardware & Software	Hardware & Software
Have an issue? We are here for you by phone, chat and online	Local business hours	24/7/365	24/7/365

Figure 51. ProSupport Infrastructure Suite

ProSupport Plus for Infrastructure

ProSupport Plus for Infrastructure is designed for customers who require proactive, predictive, and personalized support for business-critical systems. This service is ideal for environments managing essential applications and workloads where optimal performance and preventative maintenance are paramount. ProSupport Plus is recommended for PowerEdge XE servers to ensure comprehensive, preventative support for business-critical systems.

ProSupport Plus includes 4-hour onsite parts and labor response, all the features of ProSupport, and the following exclusive to ensure maximum uptime and system reliability:

1. **Priority Access to Senior Support Experts:** First in line access to Dell's most experienced support engineers for advanced troubleshooting and issue resolution.
2. **Mission Critical Support:** Rapid response and resolution for Severity 1 issues to minimize downtime and restore operations as quickly as possible.
3. **Technical Customer Success Manager (TCSM):** A dedicated advocate for cross-functional lifecycle management, advocacy, onboarding, and strategic planning throughout your technology journey.
4. **Proactive Systems Maintenance:** Semiannual updates to firmware, BIOS, and drivers to enhance system performance and availability.
5. **Third-Party Software Support:** Dell serves as a single point of accountability for eligible third-party software installed on ProSupport Plus systems, regardless of whether the software was purchased from Dell.

ProSupport for Infrastructure

ProSupport for Infrastructure provides comprehensive 24x7x365 support for hardware and software, ideal for production workloads and applications that are important but not business-critical. ProSupport for Infrastructure is designed to keep your IT environment running smoothly with expert assistance and proactive solutions. This service ensures minimized disruptions and maximized availability of PowerEdge XE server workloads through:

- **24x7x365 Support:** Immediate remote support routing to the next available technician (no waiting for a call back), with 4-hour and Next Business Day onsite parts and labor dispatch options.
- **Broad, Centralized Support:** A single point of contact for hardware and software assistance, covering hypervisors, operating systems, applications, and eligible third-party software purchased from Dell and installed on ProSupport-covered servers.
- **Incident Management:** A dedicated Incident Manager for Severity 1 issues, collaborating with Dell experts and staying engaged until resolution.
- **Enhanced Proactive and Predictive Tools:** AI-driven anomaly detection, automated case creation followed by proactive outreach from Dell support, and infrastructure health/cybersecurity/energy monitoring via Dell AIOps and connectivity platforms.
- **Global Consistency:** A seamless support experience, regardless of location or language.

Basic Hardware Support

Basic Hardware Support provides foundational support for hardware issues, including:

- Access to technical support during local business hours (phone, chat, online).
- Next Business Day (NBD) onsite parts and labor response.
- Hardware troubleshooting only (no software troubleshooting, unless it's to confirm hardware functionality).
- Proactive automated issue detection and automated case creation if the system is connected (customer receives notification and must contact Dell to proceed; unattended queue approach).

Specialty Support Services

Optional specialty support services complement the ProSupport Infrastructure Suite to provide additional expertise that are critical for modern data center operations.

Hardware coverage add-ons to ProSupport or ProSupport Plus

- **Keep Your Hard Drive (KYHD), Keep Your Component (KYC), or Keep Your GPU (KYGPU):**

Normally if a device fails under warranty, Dell replaces it using a one-for-one exchange process.KYHD/KYCC/KYGPU gives you the option to retain your device. It provides full control of sensitive data and minimizes security risk by letting you retain possession of failed drives, components, or GPU when receiving replacement parts without incurring additional cost.

- **Onsite Diagnosis Service:**

  Ideal for sites with non-technical staff. A Dell certified field technician performs initial troubleshooting diagnosis onsite and collaborates with remote Dell support engineers to resolve the issue. Customers can request dispatch of an onsite technician at any time for any severity support incident.

- **ProSupport Add-on for HPC (High Performance Computing):**

  The ProSupport Add-on for HPC enhances a ProSupport Infrastructure Suite service contract by providing solution-aware support tailored to the unique needs of maintaining an HPC environment. Key features include:

  - Access to Senior HPC Experts: Direct support from specialists with deep expertise in HPC systems.
  - Advanced HPC Cluster Assistance: Guidance on performance optimization, interoperability, and configuration.
  - Enhanced End-to-End Support: Comprehensive solution-level support for HPC environments.
  - Remote Pre-Support Engagement: Collaboration with HPC specialists during deployment implementation to ensure a smooth setup process.

- **Carrier-Grade Support:**

  Carrier-Grade Support service is designed for leading global telecommunications customers. It offers direct access to Dell solution experts specializing in telecommunications applications and outcomes. This service includes a hardware uptime guarantee, ensuring system restoration within 4 hours for Severity 1 issues. If service-level agreements (SLAs) are not met, Dell assumes penalties and fees, reinforcing its commitment to reliability and performance.

Personalized support and supplemental infrastructure expertise

- **Technical Account Manager (TAM):** The Dell TAM service provides a designated technology expert who monitors and manages the performance and configuration of specific technology sets. TAMs strive to gain deep knowledge of your environment and business goals in order to deliver recommendations for Dell solutions that optimize IT performance and resilience.
- **Designated Support Engineer (DSE):** The Dell DSE service provides an assigned technical expert that delivers personalized, hands-on troubleshooting expertise. Acting as your direct point of contact for all support needs, our DSEs ensure swift problem resolution, real-time communication and tailored recommendations to help you maintain a resilient and efficient IT environment.
- **Multivendor Support Service (MVS):** Support your non-Dell infrastructure devices under one support contract serviced by Dell. An MVS support contract can include coverage for Broadcom, Cisco, Fujitsu, HPE, Hitachi, Huawei, IBM, Lenovo, NetApp, Oracle, Quanta, Supermicro and others.

Services for Large Enterprises

- **ProSupport One for Data Center:**

  ProSupport One for Data Center is designed to deliver scalable, efficient, and reliable support for complex IT environments. ProSupport One for Data Center is available for large and distributed data centers with over 1,000 assets (including servers, storage, data protection, and networking devices) or a significant investment in Dell storage and HCI products. Built on the foundation of ProSupport, this support offer is designed for Dell's largest customers, enabling them to customize a support solution that meets their unique hardware and software needs. Key benefits include:

  - **Customized Support:** Tailor support services to address unique data center environments and existing IT systems and capabilities.
  - **Cost-Effective Options:** Choose support that aligns with technical support consumption and budget, optimizing investments while maintaining required service levels.
  - **Resource Augmentation:** Add a Technical Account Manager (TAM) or Designated Support Engineer (DSE) to augment your team. TAMs provide advanced knowledge and advice to help customers realize maximum value from their enterprise investments and the DSE is a designated product-focused troubleshooting expert who understands the environment to enhance overall health.
  - **Enhanced Infrastructure Management:** Leverage advanced automation, real-time infrastructure monitoring, and AI-powered analytics to streamline operations, reduce risks, and minimize downtime.

- **Onsite Parts Service (OPS)**

Ideal for large organizations that have their own staff to support their data center, OPS enables Dell and the customer to collaboratively manage parts inventory located at the customer's designated facility. Dell Logistics Online Inventory Solution (LOIS) software program is used to monitor and automate replenishment of inventory in the customer's onsite parts locker. As a replacement part is scanned out of inventory for use, the LOIS software automatically initiates a replenishment order with Dell that is either shipped the next day or delivered onsite by Dell during a scheduled onsite service visit. LOIS also allows customers to integrate their inventory system directly to Dell TechDirect using APIs to further streamline the support and parts management processes.

End-of-Life Services

- **Asset Recovery Services** are available on infrastructure products such as servers, storage and networking assets. The service provides secure disposition, regulatory compliance, value recovery, and environmental reporting—helping customers retire IT infrastructure with confidence while supporting sustainability goals.
- **Data Sanitization & Data Destruction** services render data unrecoverable on repurposed or retired products such as servers, storage and data protection hardware. Data Sanitization is performed according to NIST SP 800-88 r1 guidelines which ensures complete and irreversible removal of sensitive data from devices. When erasure is not feasible, Data Destruction services provide physical destruction of hard drives. All activities are documented, with detailed compliance reports provided for both data sanitization and data destruction outcomes—helping organizations retire infrastructure assets safely and in alignment with regulatory expectations.

ProDeploy Infrastructure Suite

ProDeploy Flex for factory rack integration and cluster services

For small or large opportunities desiring preconfigured servers and/or networking delivered in fully or partially populated racks, our services for AI infrastructure deployment deliver end-to-end, rack-scale deployment and validation for PowerEdge XE platforms paired with options for AI networking. These services include factory rack integration (L11), cluster build (L12), and acceptance testing to ensure Day-1 readiness and peak performance for AI workloads.

- Infrastructure Readiness Assessment to evaluate the data center prior to an AI deployment to include: datacenter layout, power/cooling (including liquid cooling), cabling, airflow, and site logistics.
- Factory rack integration (L11) of advanced PowerEdge XE servers integrated with NVIDIA InfiniBand switches or Ethernet options from Dell or NVIDIA are put through a set of strenuous tests to validate functionality of the solution prior to shipping.
- Rack placement, power connectivity, and liquid-cooling connectivity if applicable.
- Cluster build (L12) turns multiple integrated racks into a high-performance cluster: deploy all inter-rack cabling, configure the AI fabric, validate cluster, and perform acceptance testing.
- Knowledge transfer and project documentation to equip your team for Day-2 operations and ongoing improvements.

ProDeploy Flex for factory rack integration is the most effective method to deploy rack solutions and optimize at scale.

ProDeploy Plus for onsite builds

For smaller quantity solutions that don't require factory rack integration, ProDeploy Plus is ideal. This service provides expert onsite installation and configuration for complex PowerEdge XE platforms. All implementations are performed by Dell-badged employees, not 3rd parties, to ensure the utmost care and expertise is maintained through the entire process.

- Accelerate time to value with Dell engineers, site readiness and implementation planning, full onsite software installation and configuration, and validation prior to handoff.
- Proven speed: up to 3x faster planning and deployment versus in house admins with the ProDeploy Infrastructure Suite.
- Ideal for smaller XE deployments or unique proof-of-concept racks when factory services are not being used; complements rack integration for larger, rack scale AI builds.
- Reduce risk on GPU dense systems with Dell's specialized XE deployment practices and testing rigor built for AI servers.

Supplemental Deployment Services

Additional ways to expand scope or deploy for unique scenarios.

Residency Services

Certified technical professionals act like an extension of your IT staff to enhance internal capabilities and resources and help you realize faster adoption and maximized ROI of new technology. Residency Services help customers transition to new capabilities quickly by leveraging specific technology skill sets. Residency experts can provide post implementation management and knowledge transfer that is related to a new technology acquisition or day-to-day operational management of the IT infrastructure.

- Global experts available to serve in-person (onsite) or virtual (remote).
- Engagements starting at 2 weeks with flexibility to adjust.
- Residency is available for project management needs, and many different technology skills sets such as: AI expertise, compute, storage, networking, security, multi-cloud, data management, and modern workforce applications.

Additional Deployment Time (ADT)

You can expand the scope of a ProDeploy engagement leveraging Additional Deployment Time (ADT). ADT covers additional non-complex tasks beyond the usual quantity of deliverables of the ProDeploy offers. ADT can also be used as a standalone service without ProDeploy, to accomplish tasks related to Project Management or Technical Resource Expertise. ADT is sold in blocks of four hours remote or eight hours onsite. The Dell delivery team can help scope the number of hours required for specific customer needs.

Data Migration Services

Migrating data sets is no easy task. Our experts use proven tools and processes to streamline data migrations and avoid compromising data. A customer project manager works with our experienced team of experts to create a migration plan. Data migration is part of every technology upgrade, platform change, and shift to the cloud. You can rely on Dell data migration services to perform a seamless transition while our customers can keep their focus on their core business.

DAY 2 – Automation Services with Ansible

Dell solutions are built as “automation ready” with integrated APIs (Application Programming Interfaces) to allow customers to programmatically call actions on the product through code. Although Dell has published Ansible automation use cases, some customers need additional assistance with GitOps. By the end of the service, the customer will have the foundational components required to accelerate automation and understand how the programming works together: Day 1 and Day 2 use case automation scripts (ansible modules), CI/CD tool (Jenkins), and Version control (Git).

DAY 2 – Automation Services with Ansible

Dell solutions are built as “automation ready” with integrated APIs (Application Programming Interfaces) to allow customers to programmatically call actions on the product through code. Although Dell has published Ansible automation use cases, some customers need additional assistance with GitOps. By the end of the service, the customer will have the foundational components required to accelerate automation and understand how the programming works together: Day 1 and Day 2 use case automation scripts (ansible modules), CI/CD tool (Jenkins), and Version control (Git).

Dell Technologies Consulting Services

Accelerate Modernization Initiatives with Dell Consulting

When it comes to your IT and business goals, there are a ton of possible initiatives you can focus on and problems you can solve. But it can be confusing and complex when deciding what you should prioritize for your organization and where to start. The experts at Dell Technologies Consulting Services help you harmonize your business and IT needs with our outcome-focused approach. From strategy to full-scale implementation, we can deliver more, faster, so you and your organization can get back to innovating. We listen to and understand your unique needs, then collaborate with you to help you deliver the most value to your business. With decades of expertise and repeatable, proven processes, you get consistent outcomes and accelerated time-to-value. All with a holistic approach to your business outcomes. So whether you're looking to deliver cloud platforms, workforce experiences, data and applications, or achieve a resilient security posture for your business, you can be confident that your organization is heading in the right direction with Dell.

The first step: Half-day workshops.

Identify priorities to build your digital future. Our facilitated workshop discussions focus on the activities required to achieve your desired end state and conclude with next steps to further advance your business and IT strategies.

Available workshops: AI, Multicloud, Apps & Data, Modern Workforce, Security & Resiliency.

Dell Managed Services

Some customers prefer Dell to manage the complexity and risk of daily IT operations, Dell Managed Services utilizes proactive, AI enabled delivery operations and modern automation to help customers realize desired business outcomes from their infrastructure investments. With these technologies, our experts run, update, and fine-tune customer environments that are aligned with service levels, while providing environment-wide and down-to-the-device visibility. There are two types of managed service offers. First the outsourcing model or CAPEX model where Dell manages the customer owned assets using our people and tools. The second is the as-a-Service model or OPEX model called APEX. In this service, Dell owns all technology and all the management of it. Many customers will have a blend of the two management types depending on the goals of the organization.

Cyber-Security Services

Managed Detection and Response (MDR)

Dell Managed Detection and Response Pro Plus is our fully-managed, 360º security operations solution comprised of our most cutting-edge, preventive and responsive cybersecurity services. MDR Pro Plus was designed with your top security concerns in mind, allowing you to focus on your core business goals while Dell handles your security operations. First, we have Vulnerability Management. With this service, we'll do ongoing scanning of the customer's environment looking for software that needs to be patched. Next is Pen Testing and Attack Simulation Management. This service will continuously validate security controls and policies with automated Breach and Attack Simulation (BAS), because a misconfiguration can lead to an exposure which an attacker can exploit. The service also includes an annual penetration test to determine if a skilled threat actor could exploit pathways leading to critical assets or data. Third, Managed Security Awareness Training. This service will educate the customer's end users so that they don't inadvertently put the customer at risk. If you think about our annual compliance training modules, there is always a security module. This is the same type of thing, but rather than once a year, it will be smaller, bite-size pieces of content delivered throughout the year. Fourth is our Managed Detection and Response service which provides 24x7 threat detection and investigation, analysis of end-to-end activity by threat actors, threat hunting, and quick initiation of cyber incident response when needed. Customers can choose between SecureWorks Taegis XDR, CrowdStrike Falcon XDR or Microsoft Defender XDR as the security analytics platform our analysts will use to monitor their environment. All four of these services are delivered by experienced, certified Dell security experts using advanced technology such as the SecureWorks Taegis XDR, CrowdStrike Falcon XDR or Microsoft Defender XDR security platforms.

Dell Technologies Education Services

Build the IT skills required to influence the transformational outcomes of the business. Enable talent and empower teams with the right skills to lead and perform transformational strategy that drives competitive advantage. Leverage the training and certification that is required for real transformation.

Dell Technologies Learning Services offers training and certifications that are designed to help customers achieve more from their hardware investment. To learn more or register for a class today, see learning.dell.com.